

THE MODERN HOSPITAL

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tration of Hospitals, Sanatoriums and Allied Institutions, and to Their
Medical, Surgical and Nursing Services*

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CHRISTMAS AT NEW YORK NURSERY AND CHILD'S HOSPITAL

BY HILDA A. BAKER, HEAD, SOCIAL SERVICE DEPARTMENT, NEW YORK NURSERY AND CHILD'S HOSPITAL,
NEW YORK, N. Y.

FOR many weeks preceding Christmas the social service department of the New York Nursery and Child's Hospital, New York, N. Y., is enveloped in an atmosphere of excitement and thrills. Lists are prepared from names of children to be asked to come and receive gifts from the Christmas tree as well as the names of families who are to receive gifts in their own homes. Special meetings of the social service committee are held and much time, thought, and money are consumed in procuring and arranging for the Christmas festivities.

Outside agencies and individuals also help and when Christmas week approaches, the social service office begins to look like a storeroom and soon overflows into another room. The work of tying, assorting, and marking packages, requires the hands of many who toil early and late during the busy days preceding Christmas. The true Christmas spirit is there and everyone is happy when

all preparations have been made for the children in the wards and clinics.

Last year the Christmas festivities began the Sunday preceding Christmas when a piano was moved to one of the upper floors and a choir played and sang carols. The music could be heard in nearly all parts of the building and was much enjoyed by both private and ward patients.

Tree for Clinic Waiting Room

On the day before Christmas a huge tree decorated the clinic waiting room. The DeWitt Clinton high school orchestra played for the hundred children who were our guests, and the Jolly Jester arrived from Healthland to add fun before our chief of clinic, Dr. Louis Schroeder, as Santa Claus, emerged from an improvised chimney and distributed presents to each little guest. Each package contained a toy and candy donated by the Kiwanis Club. After this Christmas tree party,



A view of the children's Christmas party, 1923.



Santa visits the women's ward.

Santa Claus visited each ward and distributed gifts to all the shut-in children, and each woman in our maternity ward received a present for the new baby. Next he called at all the private rooms, making great fun and giving a little doll from his pack to each patient. This was not the least of the day's pleasures.

Fifty-five Baskets Distributed to Needy

Such excitement in the department! Automobiles loaned for the occasion and taxis were engaged in distributing the fifty-five baskets to our most needy families. Each basket contained:

Two chickens	1 pound of tea or coffee
4 quarts of potatoes	1 dozen oranges
1 quart of onions	3 pounds of cake
1 bunch of celery	1 pound of raisins
2 large turnips	1 pound of butter
4 pounds of spinach	1 jar of jelly
1 dozen apples	1 loaf of bread
2 pounds cocoa	2 pounds of sugar
	1 pound of candy

These baskets, the regular bushel baskets, were gayly decorated with red and green paper, a branch of holly and a bow of red ribbon on the handles. Each was tagged with a Christmas greeting card with name and address of each recipient. Appreciation is due to the Boy Scouts, troop 355, who sent eight of their members to assist us in distributing these baskets. In addition,



Children eager to receive gifts from Santa's bountiful tree.



A few of the fifty-five baskets distributed by the social service department in 1923.

other packages, blankets, clothing, toys, books and candy were given to about 350 individuals, and checks from a friend of the department were given to ten families.

While all this was going on, the nurses in the hospital were decorating and making all parts of the building bright with Christmas colors. Each ward had its own tree so that when the day arrived wards and corridors radiated the spirit of good cheer. Every patient's tray was decorated, every bed had its gift, and the employees of the hospital were not forgotten. Happiness reigned throughout the day. Toward evening, as a fitting close of a real Christmas, a choir from one of the city churches sang Christmas carols in one of the corridors.

Nearly 400 children, big and little, foundlings, orphans, children of parents in sanitariums or prisons are living in foster homes under the care and supervision of the hospital. Their day was a real home Christmas, for they had had the joy of writing to Santa Claus, waiting half in fear, half in pleasure, to see if their treasures would arrive; then the excitement, the thrill of opening packages and emptying stockings carefully filled miles away by the hospital Santa. It was a Christmas many a little child will never forget.



SOME PRECURSORS OF MODERN HOSPITALS THREE CENTURIES AGO

BY H. H. MANCHESTER, NEW YORK, N. Y.

SEVERAL remarkable woodcuts of the sixteenth and seventeenth centuries afford some idea of the interior of the hospitals of that era.

The most important hospital of that date was probably the Hotel-Dieu, of Paris. This is said to have been founded way back in the seventh century, by Saint Landry, bishop of Paris. It seems to have started as a mere parish house for the reception of the sick and was known at the time as Saint Christopher's.

In the reign of Philip Augustus, 1180-1223 A.D., it was moved to the River Seine, in Paris, and was rebuilt there under the direction of the king. In 1195, Philip Augustus himself presented it to the ward called Saint Denis. In the long centuries of its existence, this institution has preserved more records upon the history of the hospital than any other institution.

The daily routine, which remained much the same for several centuries, was something as follows. The brothers and sisters rose at 5 a. m., and washed the faces and hands of the patients with a towel and water carried in a basin. Then the beds were made for those who could bear to be moved.

Meals were served at 11 a. m. and 6 p. m. The patients were given meat four times a week. A common dish was mutton soup or stew, but eggs, cheese, herring, and dried fish were also served. Sometimes even chicken, squab, or goslin was supplied those who were very ill. One astonishing fact is that only three quarts of milk were required for each ward for a whole week. Wine was regularly furnished, and at the time was considered more nourishing than milk. Visitors were admitted after dinner, and the night watch went on at 7 o'clock.

In the thirteenth century, there were only 800 or 900 patients, but the number steadily increased, until in the fifteenth century there were often double that number. At that time there were about a thousand beds. Of these, some 600 were great beds intended for from four to six patients apiece, while only 400 were beds for a single patient.

It is a shocking fact, proved not only by records but by pictures, that all classes of patients were crowded together in the large beds. In fact, it is stated that patients suffering from contagious diseases were put with those only mildly ill, while dying patients were often in the same bed as those who were convalescing.



A scene in the Hotel-Dieu, Paris, in the seventeenth century showing nurses serving food to patients. The methods of food distribution then are a far cry from the central tray or diet kitchen service of today.

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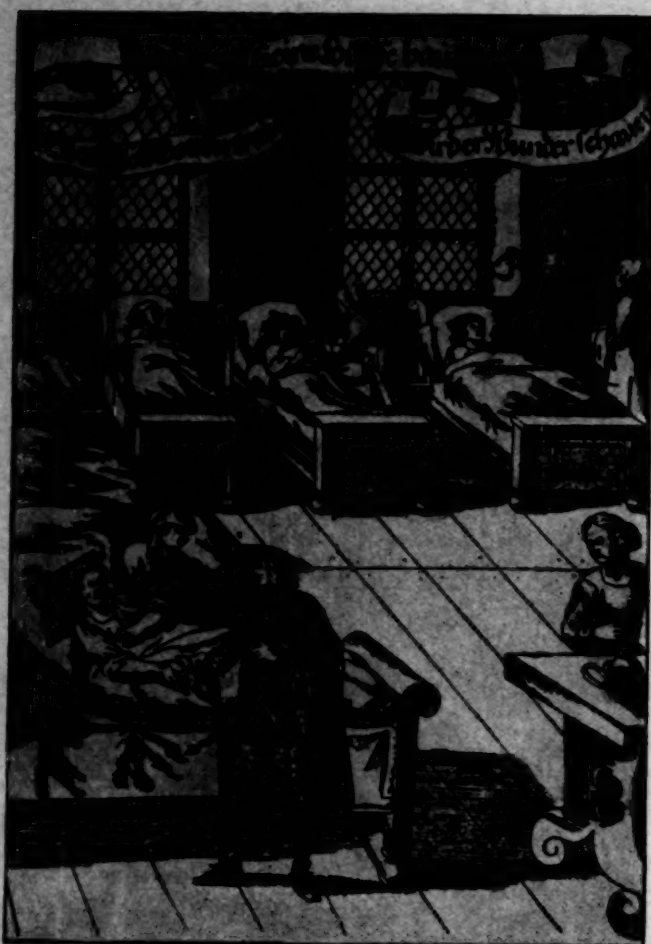
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A scene in the Hotel-Dieu, Paris, in the seventeenth century showing nurses serving food to patients. The methods of food distribution then are a far cry from the central tray or diet kitchen service of today.

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Interior of a hospital at Nüernberg, Germany, 1682.

The beds themselves were of wood, and often in alcoves closed in by curtains. The privacy which this gave was more than offset by the opportunity it offered to vermin. In general, the furniture was only slightly modified from that in use by the well. Rubber, of course, was as yet unknown, but leather was used to some extent for the same purposes.

The earliest of our pictures is taken from the top of a letter of indulgence, dated 1510,

and entitled as follows: "Pardon, Grace and Privileges Granted by the Archbishop, Patriarch of Bruges and Primate of Aquitaine, to the Benefactors of the Hotel-Dieu, Paris." In other words, in return for gifts to the hospital, the church gave certain indulgences.

The first illustration, a reproduction of a woodcut of the Hotel-Dieu, shows the religieuses of the hospital serving food to the patients. At the right the superior is preparing food for distribution, while several are serving it. One nurse, with her back toward the reader, is carrying an infant.

The pestilences of the sixteenth century and of 1606 crowded the Hotel-Dieu to overflowing, and made it evident that more hospitals were needed.

In 1607 Henry IV constructed the Hospital Saint Louis, intended to receive victims of the plague, and named after Louis IX, who died of that disease while on a crusade. This hospital was also in charge of the Augustines, and, was much of the time, a branch of the Hotel-Dieu. It later became a general hospital with about 800 beds.

Another hospital of the time was the Charity Hospital founded by Marie de Medici. For the management of the hospital, she brought several members of the religious order of Saint Jean from Italy. The buildings were constructed in 1607, and at first were opened only to male persons, the attendants being all brothers of the Order of Saint Jean. The recurrences of the pestilence continued to crowd the hospitals all through the seventeenth century.



A pest house in Vienna, Austria, in 1679.

In 1607 there were ninety-five sisters in the Hotel-Dieu; in 1655 there were ninety sisters, and some paid servants; in 1651 there were

least, as long as the supply held out.

Even these conditions at Paris seem to have been better than the places provided for plague



A scene in Hotel-Dieu, Paris, 1510, from the top of a letter of indulgence.

1,800 patients, but by 1663 the number had risen to 2,500. In 1677 in the Hotel-Dieu and Saint Louis Hospital, which were under the same management, there were in all 3,600 patients.

The ward of Saint Paul in the Hotel-Dieu was 240 feet long and thirty-six feet wide, and contained seventy-five large beds and thirty-three single ones.

Allowing one patient to each single bed, this left an average of four to each of the large beds. This condition was beginning to meet with some criticism, but it was answered by the statement that even this was much better than letting the patients die on the streets.

As a matter of fact, the crowding of the hospitals was in part the result of the growth of Paris itself, which greatly increased the inhabitants in proportion to the space available, and in part the effect of the pestilences which suddenly multiplied the number of sick.

In general, the wards were not heated, but the one for surgical operations and for maternity cases had stoves or charcoal braziers.

It should be added that the washing of linen was done in the open air in the Seine itself, and in order to do it the sisters stood in the water even in the winter months. The linen included a nightdress and a nightcap for each patient, at

victims at Vienna, if we may judge from a picture of a Vienna pest house dated 1679. (page 512) This was apparently a building used temporarily for the purpose, and the patients are shown sleeping on straw strewn on the ground and floor. Nevertheless, doctors are attending the sick, a nurse is carrying a steaming vessel to one of them, a priest is conferring the last rites, and assistants are carrying away the dead.

A hospital under better conditions is shown in a copper plate of 1682, (page 512) representing the interior of one at Nürnberg. It will be noted that only single beds are shown, and that they are without curtains. The windows also give a promise of greater light and air than were available for several centuries in the Hotel-Dieu, at Paris.

N. Y. HOSPITAL COMMISSION GETS LAND FOR NEW BUILDINGS

A preliminary agreement was signed November 13, by Dr. C. Floyd Haviland, chairman, state hospital commission, Albany, N. Y., and General William Barclay Parsons, chairman, joint administrative board, Columbia University and the Presbyterian Hospital, providing for the conveyance of land to the state hospital commission for the erection thereon of new buildings to house the State Psychopathic Institute and Hospital, which is now located on Ward's Island. The land is a portion of the twenty acres on 165th Street at Broadway where Columbia University and Presbyterian Hospital medical center will be built.

SOME FUNDAMENTAL PROBLEMS IN HOSPITAL ADMINISTRATION*

By E. M. BLUESTONE, M.D., ASSISTANT DIRECTOR, MOUNT SINAI HOSPITAL, NEW YORK, N. Y.

THE subject of my discourse will appear to be in the nature of a platitude. The literature of hospital administration is replete with protestations of humanitarianism, and the humaneness of modern hospital policy seems always to be taken for granted. The necessity for instilling a soul and maintaining it in the complex hospital machine has given concern to every thoughtful administrator since the birth of our profession. A similar ambition in this connection may be said to characterize the young physician who, in his student days, is inspired with the enthusiasm of the idealist to prevent or relieve suffering by every means in his power. The tendency for the hospital executive to become routinized at his desk with the result that the purely business aspects of his office take precedence over the humanitarian (perhaps because of the force of certain circumstances which are not, however, beyond control) is marked, and deserves serious thought from the sincere student of hospital administration.

As in other fields of social endeavor where from time to time there appears to be a want of harmony between principle and practice, so here, where the hospital superintendent is coming to be thought of as a business executive rather than as a social worker of high grade. A questionnaire on the much-discussed but relatively unimportant topic as to whether a layman or a physician is best fitted for the post of superintendent of a hospital, was recently conducted by the *New York Medical Week* and showed that many physicians think of hospital administration in terms of hotel management. The question raised is of minor importance because the layman can be quite the equal of the physician as a humanitarian.

The complexity of hospital organization may be

said to be a product of the Industrial Revolution. Progressive differentiation and the division of labor are evident in direct proportion to the size and efficiency of the hospital, and these phenomena are felt most in the office of the executive. There are many duties to perform, some of which must take precedence over others because of the simple reason that if they did not the hospital machinery would stop running. Engineering, housekeeping, bookkeeping and purchasing matters cannot wait and, as a rule, compel prompt attention.

The matter of clinical supervision, that is, the supervision of the numerous ward procedures which affect the comfort of the patient, is unfortunately put off till tomorrow, while bills are examined and checks signed. The debt to the purveyor is important—how else can the hospital function if its liabilities in dollars and cents are not liquidated with reasonable promptness? May we not ask ourselves at the present stage in the development of hospital organization, whether the debt to the sick man is

not really of greater urgency and, therefore, entitled to an equal share at least of our time and interest?

The patient having been admitted to the hospital and placed in the hands of the physician, surgeon, nurse, social worker, laboratory worker and lay employee, how much time in actual hospital practice is devoted to an examination by the superintendent to determine personally (a) whether everything possible is being done promptly to relieve his suffering, and, at the same time, (b) whether, as we all know to be quite possible, anything is being done unnecessarily that might in any way aggravate his suffering. The practice of medicine, in itself the noblest profession in which man can engage, is unhappily subject to certain controlling influences which color the activities of the physician in the hospital

The Human Element

“SYMPATHETIC control by the administration of the scientific enthusiasm of the staff, whether at the bedside, in the operating room, or in the classroom should be given more attention than it has thus far received. . . .

“The superintendent should supervise the care of his patients as much as he audits his accounts of profit and loss in money If the administration were as much concerned with mistakes in the wards of the hospital as it is with those that occur in the business departments, what an impetus hospital service would receive.”

*Paper read before the twenty-sixth annual conference of the American Hospital Association, Buffalo, N. Y., October 9, 1924.

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The Scientific Factor

With the advent of the scientific era, the necessity arose for safeguarding the patient from the enthusiasm of research scientists, amateur and professional, who might, in good faith and with the best intentions in the world, attempt to establish the truth of their hypotheses by premature procedures on the human subject. Against the ambitious tendency thus to hasten the march of scientific progress there still exists the need for a positive check. The science of medicine, like every other science, is relentless in its search for truth and, as every hospital administrator knows, it is apt on occasions to become ruthless. This statement may appear to be somewhat sweeping in character and accusatory, but the transgressions against the physical and mental comfort of the patient, especially the poor patient, in the name of scientific expediency, are too numerous to be overlooked. Has the hospital executive the right and the power to institute an impartial investigation of hospital activities in this regard, as a routine function of his office? And if so, how often is this right exercised in actual practice?

Humanitarianism Needs Emphasizing

At the risk of becoming academic in statement, let me say that the growth of the scientific spirit has not carried with it sufficient direct emphasis on its humanitarian aspects, except by implication. Hospital workers, for one reason or another, differ in their reactions, and there are those who, by nature or nurture, do not read the moral correctly because it is not stated plainly. The great danger is to look upon scientific facts as mere formulæ which lend themselves to literal translation and obedience only. From this point of view the ideal is to discover more and more formulae of mathematical precision till, in the ideal state, the pressing of a button will produce the ideal result. The effect of such a tendency is to look upon the patient as a highly complex laboratory devoid of feeling. This tendency is aggravated in the hospital by the absence of sympathetic control such as obtains in the home, where every other consideration is sacrificed to the comfort of the patient. Let the superintendent or clinician think for a moment of his own solicitude when a member of his family is sick. There is no better criterion for his own activities

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An eminent medical man of science writing on "A Biophysical Law Governing Surgical Mortality," concluded that "electricity is manifested in every act of the living and is probably the so-called 'spark of life'." Here is an example of scientific accuracy. From the standpoint of the supervisor, however, it must be borne in mind that such biophysical laws in their application to the human being do not resemble the application of scientific laws to machinery. The superintendent should never lose sight of the oft repeated axiom that every case is a law unto itself. It always will be.

Sympathetic Control Essential

Medicine is not only a science but an art. Sympathetic control by the administration of the scientific enthusiasm of the staff, whether at the bedside, in the operating room, or in the classroom, should be given more attention than it has thus far received. This statement is not intended to imply autocratic powers for the hospital executive as concerns hospital morals in this important regard, but it does mean that the attention, or lack of attention, given to the sick man is subject to extra-clinical jurisdiction. It is possible to establish the propriety of certain clinical habits, customs, traditions and conventions in the treatment of the sick by an impartial investigation with the help of representative clinicians in any particular field. The most desirable method which could be employed to improve present standards would be to compare these procedures in the wards with the same procedures in the private section, and in the out-patient department, with private office practice. The sick man has the right to ask for the personal interest of the physician to whom he is assigned, without regard to any other consideration than the relief of the condition for which he seeks treatment.

The facts are (a) that a certain amount of liberties with the patient, especially the poor patient, seems to be taken for granted as being necessary in the nature of things scientific, and (b) that the kind of service given by the medical staff may not properly be called into question. A few recent incidents which have come to the attention of the writer are here mentioned as being typical. The first concerns a clinical assistant in the out-patient department of a large hospital (large hospitals seem to suffer most in these respects) who

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The facts are (a) that a certain amount of liberties with the patient, especially the poor patient, seems to be taken for granted as being necessary in the nature of things scientific, and (b) that the kind of service given by the medical staff may not properly be called into question. A few recent incidents which have come to the attention of the writer are here mentioned as being typical. The first concerns a clinical assistant in the out-patient department of a large hospital (large hospitals seem to suffer most in these respects) who

stated frankly that his time was given freely to the institution because he wanted to "try it on the poor first."

The second instance was that of the director of a large surgical service whose house surgeon developed the habit of preparing a large number of patients for operation in order that his senior could make an eleventh hour decision on whom to operate that day. In his endeavor to save time for his staff he unwittingly subjected his patients to a prolonged mental strain which was, needless to say, avoidable. The third instance was the case of a specialist who was examining the eye grounds of a patient and who invited his colleagues, within the hearing of his patient, to have a look at "this pretty case of brain tumor." The fourth instance occurred at the bedside of a "case," where learned physicians were discussing probabilities while their juniors, unchecked, were placing wagers on the diagnosis—all this within the hearing of the patient, as if he were an object inanimate. Incidents like these can be multiplied.

Supervision of Ward Procedures

The superintendent of the most businesslike hospital in the United States will find much to occupy his time if he will shift his activities for a brief period from his desk to his wards. He might find, among other things, that the visiting staff, for a number of reasons, which in some instances may be of the best, is leaving to the house staff difficult and important procedures to be performed on a patient in the operating room or in the wards without adequate supervision. He might also find that members of the house staff are leaving to the nursing staff and to orderlies the carrying out of important bedside procedures which require specialized knowledge. The fact that in most instances no apparent harm results, and that the patient does not know the difference anyway, can hardly be adduced in justification of these habits.

Lack of Interest in Chronics Regrettable

The attention of the writer was recently called to a distinguished foreign physician who visited these shores for a brief stay, and of whom it is said that he makes rounds in his wards on picked cases only. The emphasis on "interesting" cases which is such a common clinical failing, is to be deplored. The introduction of the scientific spirit into the practice of medicine, especially into hospital practice where the physician can choose his cases if he is disposed to do so, has brought with it as an undesirable by-product a regrettable lack of interest in those patients vaguely classified as

chronic, in whom permanent tissue changes have already taken place and in whom spectacular "cures" are no longer considered possible.

Some years ago, a great surgeon announced a new method of preparing a patient for a thyroid operation. This operation was to be robbed completely of its terrors, and the patient was to be gently and humanely prepared so as to rule out as nearly as possible every conceivable element of fear and anxiety. Psychic trauma was to be reduced to a minimum. The problem for the administrative research worker is how to establish this routine for every case that knocks at his doors for surgical relief.

Things Which Call for Eternal Vigilance

In the course of a tour which the writer made of a number of large institutions before entering the field of hospital administration, a few impressions were made which will bear narration here. They are mentioned by way of proof of the importance of supervision and of the necessity for eternal vigilance on the part of the administration. The first observation was made in the tonsil operating room of one of the largest special hospitals in the largest city of the country. Four children were in the room. On table No. 1 there was a girl who was undergoing an operation for an obscure neck condition. On table No. 2 was a tonsil case under operation. The operator, who looked like a well-meaning fellow, was apparently trying to establish a record for speed in operation, possibly for scientific purposes, and possibly because of the large number of cases that were to be done in the course of the afternoon. Whatever the reason, his face seemed to show that he was oblivious of the fact that a child who "loved and was loved" was the subject of his surgical enthusiasm.

On table No. 3 was a child in the first stage of anesthesia, who was strapped to the table in the usual manner, and across whose body was leaning rather heavily a burly orderly who seemed well able to control the little patient. The intern-anesthetist on this last case was interested in what was going on at table No. 1, and was calling across to ascertain whether or not his preoperative diagnosis was correct. The administration of the anesthetic was by the so-called "gallon method," and the patient had literally been choked into unconsciousness. On table No. 4 was seated a little fellow who was in the transition stage from the tenderness of the nurse who carried him to the table in her arms to the sights of the operating room. His pupils seemed to dilate with fear as he saw what was transpiring, and his cries seemed to fall on ears that had unfortunately grown accustomed to these happenings. The su-

perintendent was busily engaged at his desk with what is known in the army as "paper work."

The second incident observed was the case of a surgeon who was universally regarded as one of the spokesmen for the profession of gynecology. The professor was giving a clinic to third year medical students in one of the largest municipal hospitals in this country. His patients were recruited from a comparatively low social order and a large number of them were in the pauper class, the most dependent group from the standpoint of medical charity. This surgeon, whom an entirely different class of patients deified for his kindness and learning, never wasted time with his incisions at this clinic. The majority of these cases were diagnosed as chronic salpingitis, the complication of that dread disease of which the patients were guiltless and unhappy victims. The number of cases in the course of an afternoon was large enough to embarrass any single surgeon whose time was so occupied with public and private responsibilities. At the time it seemed to me that it would have been desirable for one of the interns to read to the students the social history of these cases just as he read the clinical history. A long wait in the anesthesia room and the patient was finally brought in. In one of these cases the patient was kept under the anesthetic while the teacher lost himself in a discussion of the pathology of tubo-ovarian disease. In the second case the patient was not quite "under," but the surgeon saw only the field of operation. As he applied the scalpel, he remarked to the students, "it is not necessary to take all day to get into a belly," and thereupon placed his incision so well that the abdominal wall was divided at one stroke and with much less time than it would have taken him to go through layer by layer. The gut was rarely nicked in the hands of this master technician, and the students applauded his prowess, thinking the operation a pretty one. Incidents of this sort were probably of daily occurrence about which the superintendent was quite unaware.

Demonstrations Which Annoy Patients

Still another incident deserves mention here. This particular case in its essential features, resembles a few that are so well described in Dr. Richard Cabot's interesting article in the *Survey* on "The Need of Protecting Patients from the Pedagogic Enthusiasm of Medical Teachers." A leading authority on fractures and dislocations who recently passed from the scene, was demonstrating in the amphitheatre the Kocher method of reducing a dislocated shoulder. "Now, gentlemen," said this enthusiast in the presence of his patient, who was a foreigner, "there are two ways

of reducing a dislocated shoulder. I shall now show you the second method." He then proceeded to dislocate the arm anew, describing at the same time the mechanism of such accidents, and continued with his demonstration.

Let me now briefly refer to another controlling influence in the life of the physician which may call down the judgment of the administration on his hospital activities. Next to the manifold ills which attend his lack of, or excess of, scientific enthusiasm, come the evils which result from his daily financial relationships with his patients. There is no profession on earth which can be compared with the practice of medicine from the standpoint of humanitarian idealism. But, where is the physician who does not regret the inconsistency of his position when he is obliged to sell his powers of relieving suffering for a monetary consideration as one would any commodity? The subjection of the medical scientist to the laws of commerce seems to me to be one of the crying sins of our civilization. The fact remains, however, that the physician is by ill fortune the victim of a commercial environment, and the necessity for earning a livelihood controls the activities of the most ardent idealist, and his life becomes an eternal compromise with his ideals. The problem in its relation to the hospital is so apparent that the administrator need only be reminded that here is a potential source of danger against which his best efforts should be devoted.

Sick Judge by Humanitarian Impulses

The sick man does not for the moment see the necessity for progress in medical science and may be permitted an increased degree of selfishness as a protective mechanism in his struggle for life. The fact which the average hospital employee does not grasp sufficiently is that he is judged by the sick man in accordance with his humanitarian rather than his scientific impulses. The problem is how to bring the patient back to health by the best methods known and, with the least discomfort to him, gather facts concerning his illness which will enable us to improve those methods.

With all that has gone before, it might appear that this is an indictment of the medical profession. There is, however, no intention to belittle the work of a science which has written so many bright pages in the history of mankind. It is important, in the interest of a broader interpretation of medical service, to combine the clinical with the administrative points of view in a manner that will bring the greatest amount of good. The intention here is to suggest a wholesome and sympathetic cooperation with the clinical staff in order to add an unbiased viewpoint. The method

works both ways. The clinician is frequently the adviser and friend of the administrator, and conversely, the administrator should be the adviser and friend of the clinician.

Let me repeat the burden of this discourse. The superintendent should supervise the care of his patients as much as he audits his accounts of profit and loss in money. Clinical supervision is somewhat different in character from business supervision and requires talents which bring out the versatility of the good executive. Mistakes occur again and again before they come to the notice of the superintendent whose vicarious administrations seem to lend encouragement to their repetition. It is well to bear in mind that while the business affairs of a hospital may show a surplus or a deficit, in scientific matters there is always a deficit, and never a surplus. It is all a question of the amount of time that should be devoted to clinical supervision as compared with lay supervision (in which convenient category are included auditing, housekeeping, purchasing, and engineering matters).

What proportion of time should be devoted to supervising the receiving of merchandise and the receiving of patients, to checking bills and checking patients' records to determine what else could have been done in the case of the patient who was discharged not cured? If the superintendent were as much concerned with mistakes in the wards of his hospital as he is with those that occur in the business departments, what an impetus hospital service would receive! A typical example of our slowness in checking clinical procedures is to be found in the low averages of post-mortem examinations, although in this respect the hospital conscience seems to be showing signs of awakening. Every patient that goes to his grave with a clinical secret, unstudied, seems a reproach to our finest humanitarian ideals. We must keep faith with the dead as with the living. The study of the etiology of clinical failures, every death being so classified, represents, in my opinion, the very essence of preventive medicine. There is nothing that will stimulate medical service to become more humane than the constant repetition of requests for permission to determine causes and cures by means of post-mortem examination. The staff will move heaven and earth in its desire for accuracy in effecting a cure, and the auxiliary departments will be stimulated to better service if an audit of clinical accounts is known to be a certainty. There is nothing that will mature an intern more rapidly and cause him to think more deeply about his daily tasks than the discussion with the nearest relative of the humanitarian argument in favor of post-mortem

examination. His attitude toward the next case will be both scientific and humanitarian.

In some of the matters that were here discussed the usual method of indirect supervision by waiting for complaints from patients is hardly satisfactory. The majority of patients with a just cause for complaint will make allowances for a charitable institution which handles huge numbers and which may not possess a smoothly working organization through lack of funds. The poor man hesitates to complain when he gets something for nothing. An excellent administrative method is to investigate every case where a patient leaves the hospital prematurely and against the advice of the medical authorities.

There is at the present time a tendency on the part of the governing authorities of the larger hospitals to subordinate clinical to business administration. The superintendent, taking a leaf from large industrial ledgers, boasts of the largest, tallest, most costly and best equipped hospital building in the world. There seems to be a cold emphasis on quantity production with insufficient attention to important phases of problems which concern the sick more intimately. Our careless method of herding the sick in large hospitals and dispensaries is a matter which is deserving of a greater share of thought from the serious minded student of hospital administration. It seems to smack of the bread line.

The Human Factor

This theme is here presented because of a conviction that there is need for a shifting of emphasis on the part of the administrator from the business to the more directly humanitarian aspects of hospital supervision on the ground that the comfort of the sick is primary, and the business of keeping house for him is important, but secondary. It is intended in a way as a plea for a broader interpretation of hospital service. There is more to the administration of a hospital than may be seen from the office of the executive. The problem of legislation for the guidance of those who are to serve the patient, and the promulgation of rules and regulations which frequently do not apply because every case is a law unto itself, are valueless without the personal interest of the superintendent. "The letter of the law killeth" in hospital administration as in all other forms of human administration. John Milton may have intended to warn us when he said: "He who placeth any ordinance above the Good of Man and the plain Exigence of Charity, let him profess Papist, or Protestant, or what he will, he is no better than a Pharisee."

THE PLACE OF LANDSCAPE ARCHITECTURE IN PLANNING THE MODERN HOSPITAL

BY CARL F. PILAT, LANDSCAPE ARCHITECT, NEW YORK, N. Y.

THE modern tendency in hospital planning to depart from the cold austere institution of the past, and to create instead a homelike, cheerful place for the ill and the convalescent marks a notable advance. It has come about through the recognition of the fact that whatever contributes to the peace of mind and mental well-being of the patient helps to speed recovery. The body suffers with the mind and rejoices with the mind, all the more when they are both in the sensitive state brought about by illness.

Beautiful surroundings have charms that sooth and benefit the sick, a truth which is being accepted and acted upon in our hospitals. Not only is this the case in the interior of the buildings, where agreeable decorations and furnishings are coming more and more to prevail, but it is equally true in the treatment of hospital grounds. Architects are now almost without exception providing solariums and open-air porches for the comfort of patients during convalescence, and whenever an institution has the good fortune to possess ample grounds, it is generally recognized that their planning and planting must have a considered relationship to the open-air treatment.

The average city hospital has little more space than is actually covered by its buildings. But even a few square feet of surrounding ground can be made to extend a welcome by a judicious planting of trees, shrubbery, vines and grass. Some, like Mount Sinai Hospital, the Fifth Avenue Hospital and the Brooklyn Hospital, in New York, are happy in their outlook over splendid parks, where the problem of landscaping is that of the municipality, not of the institution. Suburban and country hospitals are fortunate in being able to provide spacious surroundings and to bring to their patients the benefits which nature alone can supply.

A Pioneer Hotel for the Sick

The Carson C. Peck Memorial Hospital, of Brooklyn, was one of the first institutions to break away radically from the traditional hospital atmosphere, both within and without. This

hospital was the first to plan definitely a hotel for sick people, where not only was the maximum privacy for all emphasized, but in every room and ward, decorations and furnishings were chosen more like those of a home than of an institution. The entrance hall, in particular, was given a welcoming and friendly air, so that the patient strange to hospital ways, would not seem to read his doom in his surroundings, "Abandon Hope All Ye Who Enter Here," as was once the case in hospitals—rather would he feel encouraged by the greeting of its cheerful atmosphere.

This hospital is situated on a five-acre plot, and is unique among city hospitals in the treatment of its landscape possibilities. The grounds are screened by shrubs and trees massed along the

borders of the property, with due consideration for decorative effects in color and foliage in both summer and winter. The spacious lawns provide room for a tennis court, basket ball ground and a short three-hole golf course. There is a



Figure 1. Model of proposed extension of the New Jersey State Hospital, Morris Plains, N. J.

green-house in which flowers are grown to bring cheer to the patients' bedside, and to which the ferns and other plants which delight the eye in the rooms, corridors and solariums are sent for recuperative treatment. For more practical, but not less appreciated purposes, the hospital maintains its own truck garden, which insures a supply of the freshest and most appetizing vegetables and fruits to tempt the palates of the sick and the convalescent.

Grounds of Carson C. Peck Memorial Hospital

The accompanying photographs taken several years ago, give an idea, though an inadequate one, of the grounds. Figure 2 shows the main hospital building and the planting which greets one upon approaching the hospital. Here are trellises of climbing roses with clusters of bright flowers in springtime. Often in a case like this it is better to allow trailing roses and vines to spread over the surface of the sloping ground, thereby providing a carpet of foliage and flowers that is free from the mechanical effect of the rows of trellises. This is not only pleasing because of the simplicity

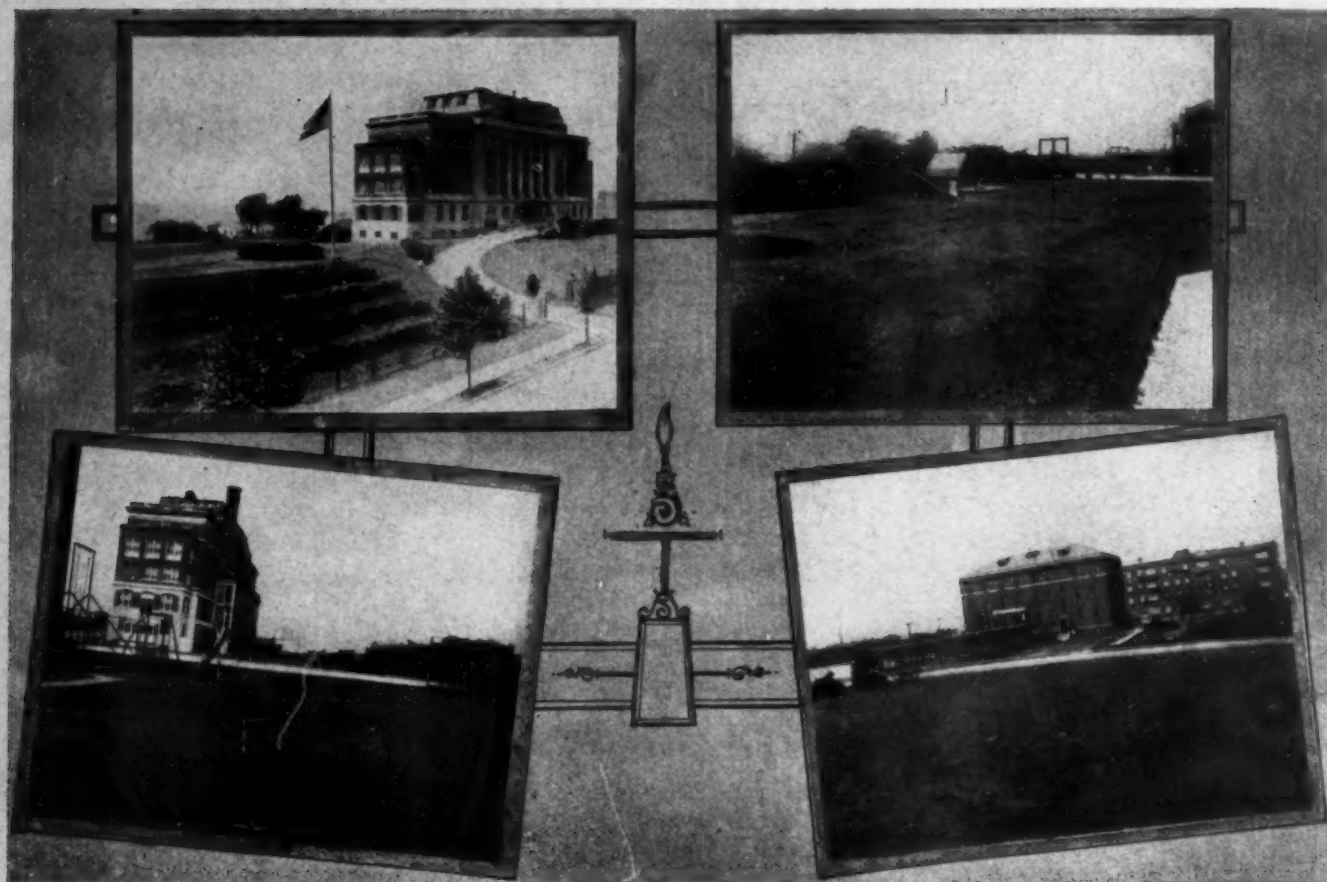


Figure 2. Views showing the landscape architecture of the Carson C. Peek Memorial Hospital, Brooklyn, N. Y. (Upper left) grounds at entrance showing border plantation of trees and shrubs extending around the buildings; (upper right) a view of the lawn at the back and side of the hospital; (lower left) a portion of the recreation grounds; (lower right) grounds looking toward the front of the hospital.

of massing secured and a sense of naturalness, but it is also advantageous from a practical standpoint, since both the initial cost and the maintenance cost are less than where trellises are used, involving the upkeep of the trellises and the mowing of the strips of lawn between them.

There is no advantage in the use of trellises where the ground slopes as sharply as in this case, for the strips of lawn are too steep to be walked on comfortably. The fact that more flowers can be produced by training the roses on trellises is beside the point, for the object aimed at here is decorative effect. The maintenance cost of a slope covered with a carpet of rambler roses and vines is less even than that of a grass covered slope that requires frequent cutting either with a lawn mower or by hand.

Features Which Make for Beauty

The upper left view, figure 2, gives a glimpse of the variegated border of trees and shrubs and of the basket ball grounds and lawns. It is possible that the slide and swings, designed primarily for any children who may be convalescent in the hospital, may be put to further use by the nurses, in spare moments.

The view at the lower left gives a bit of the golf

course and of the very excellent tennis court, enjoyed by interns and nurses alike, while the lower right view shows another stretch of lawn, looking toward the nurses' home, and against the horizon, across the tennis court, the background of trees which gives the grounds their air of seclusion and remoteness, although in the midst of a great city.

The United Hospital, Port Chester, is on the Boston post road in Westchester County, N. Y. The property is approximately twelve acres in extent, composed of undulated lawn and meadow, a hill partly wooded with old oaks, maples and elms, and a considerable area of open ground in the rear, set aside for vegetable garden and other utilitarian purposes.

The buildings are ideally located on a hill where the drainage insures perfect dryness, the high location insures ventilation, the plan is so orientated and the buildings are so arranged that the sun reaches all parts during its course by day. The grounds are sufficiently large to permit of the placing of the buildings away from the two highways which border the property and, in this way, the hospital is protected from outside noises, dust or interference in any way from public traffic.

In addition to the large native trees which were growing on the place, other shade trees and ever-

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greens, boundary plantations and foliage masses have been introduced, thus enhancing the appearance and giving the feeling of seclusion and privacy which will induce convalescents to mild exercise and rest out-of-doors. The general effect is of a hospital placed within a park of its own.

The photographs will give an idea of the design of the buildings, the character of the hospital and a general impression of the atmosphere of the institution. Figure 3 shows the façade and entrance to the vine-covered nurses' home.

The formal treatment of forecourt of the administration building and nurses' home and the west façade of the administration building, and the approach to the main entrance from the east, are also shown in figure 3.

Figure 1 is a photograph of a model showing the site and proposed new buildings of the psychopathic hospital of the New Jersey State Hospital at Morris Plains, N. J.

The large central building with the four wings is for reception and diagnosis. At the middle left are treatment buildings, at the middle right are two betterment buildings, in the background among the trees are four convalescent buildings. The housing for the staff and employees is seen at the extreme right and on the slope in the foreground. The model shows only a small portion of the several hundred acres of farm and woodland owned by the state hospital. The existing buildings and activities of the in-

stitution join on to the left of the model.

The latest and best ideas in hospital design, construction and operation have been adopted in these new buildings and they are designed to supplement the old so as to make a complete hospital unit where the most advanced methods of remedial treatment for the mentally ill will be put into effect.

Importance of Landscape Surroundings

Talking with the writer on the subject of this article, Mr. T. B. Kidner, consultant on institutional planning, National Tuberculosis Association, directed attention to the following clause in the association's standard specification of the principal factors to be considered in the selection of a sanatorium site:

"Because of the tedious nature of the treatment of this disease, it is important that any natural beauties of a site be conserved in laying out the building scheme, as pleasant surroundings are undoubtedly a factor in the treatment of tuberculous patients."

Mr. Kidner further said that in all of his reports on sanitarium projects he always recommends that the sanatorium authorities see that landscape work about the buildings and in the grounds generally be given special attention. He declares that the grounds should present a park-like appearance, with suitable walks, lawns, flower beds and shrubs. If trees exist on the site they should be left standing as far as possible, he says, and a planting scheme for others should be included in the landscape plans. He quoted a medical superintendent of a sanatorium who said, "Pleasant surroundings are very much more



Figure 3. Views of the United Hospital, Port Chester, N. Y.

effective for patients suffering from tuberculosis than any pills or potions that we may be able to prescribe for them."

Mr. Kidner added, "It should not be forgotten in this connection that, as part of the cure, patients are required, as soon as their condition permits, to take gentle walks on the level and it is, of course, most desirable that the walks be pleasant and attractive. The nature of the disease does not permit of any strenuous outdoor exercises."

"In point of fact, some level lawns on which croquet can be played will usually provide opportunity for all the outdoor exercise permissible, in addition to the walking."

Now that the importance of hospital grounds as a factor in treatment is generally recognized, the next step in advance along this line is the solution of the special landscape problems of each hospital in such a way as to secure the best possible results with the minimum initial cost and the lowest maintenance charges. This applies, of course, not only to new hospital projects, but as well to existing hospitals, where much can be accomplished by well directed effort and an expenditure more than justified by the results. Though the primary object in such improvements is to benefit the patients directly, there is an incidental advantage to the hospital in having well-designed and well-kept grounds, inasmuch as they give evidence of good administration and create a favorable impression upon those to whom the hospital looks for support or extension of its good work.

SOCIAL WORKERS MOVE HEADQUARTERS

The American Association of Hospital Social Workers is now located in its new headquarters at 30 East Ontario Street, Chicago, Ill. The association moved from Baltimore, October 1.



International Newsreel Photo
A tête à tête with Santa Claus during his visit to the Home and School for Crippled Children, New York, N. Y.



International Newsreel Photo
Theora Carter, president of the Society for Good Cheer, New York, N. Y., presents the children of the Hospital for the Ruptured and Crippled with pictures as Christmas gifts.

CHRISTMAS AT MERCY HOSPITAL, KANSAS CITY, MO.

By LUCRETIA BREWSTER, Student Affiliating Nurse, Independence Sanatorium, Independence, Mo.

Since Mercy Hospital is a children's hospital, it is a delightful place during the Christmas season, for childish joys permeate the whole institution. There Christmas is a happy time lasting over a period of weeks. It is customary for each child to write a letter to Santa Claus. These are collected and read, and each child receives as nearly as possible his choice from the great arm loads of packages that are brought to the hospital. Some of the demands are unusual. One little girl wanted a Kiddie Kar with pedals on it. Accordingly the hospital advertised in the paper and, much to the surprise of everyone, the night before Christmas, the package was sent by some kind friend who had seen the ad.

Santa's visit is made the night before Christmas but not as the poem depicts, "not a creature was stirring not even a mouse," for each child is waiting for Santa to fill the stocking that has been hung on the bed.

Christmas trees are everywhere, in the wards, in the halls, and nurses' reception room. Colored lights are strung throughout the corridors which are attractively decorated with holly wreaths and bells.

The nurses' packages are kept as they come by mail and placed under the house tree in the nurses' reception room. Santa remembers all the nurses and employees. A Christmas program is presented and after that the packages are distributed by Santa from the house tree.

Christmas morning the nurses go through the corridors singing old carols such as "Hark the Herald Angels Sing." Then the convalescent children gather around a tree in the play room when Santa Claus comes and makes more noise than in the hospital wards. Here, with the help of the interns and staff members, he gives out the packages, calling each child by name.

A special program is arranged for the out-patients who can attend, by invitation only, and invitations are sent to those children who come faithfully for treatment. Santa Claus also comes for this occasion, making in all three visits.

For weeks the nurses wrap and label packages so that all children will have the same number of packages to open on Christmas morning. At noon dinner is served in the dining room at a large banquet table beautifully decorated.

SOME SUGGESTIONS FOR SOLVING THE PROBLEM OF PATIENTS' DELINQUENT ACCOUNTS

BY CHARLES N. COMBS, M.D., SUPERINTENDENT, UNION HOSPITAL, TERRE HAUTE, IND.

PATIENTS' delinquent accounts may be called a parasitic disease which infests nearly all hospitals. It may be only mildly active at the time but the germ is potentially present ready for the slightest excuse to break out in a virulent form. It may even be insidiously ravaging the financial vitals of the institution undetected by the superintendent. It is the purpose of this paper to forewarn and forearm the new superintendent who has not by bitter experience learned the prevention and cure of this malady.

The primary cause is failure of the hospital to make definite and exact financial arrangements when the patient enters, particularly in the matter of permitting the patient to engage more expensive accommodations than his income will permit. The hospital has all varieties of accommodations from the highest priced private room or suite with bath, down through the cheaper rooms, small or semi-private wards and, finally, the free wards.

The admitting clerk should act in the capacity of a social service worker, should evaluate the financial status of the patient and, with the patient or with the family, determine just the right priced bed. When the family has decided upon the amount per day which they can afford to pay, no concessions or variations from the fixed charges should be allowed upon any pretext of hard luck, or otherwise. All possible sympathy and understanding must be used in arriving at the patient's ability to pay, but once this is established the affair becomes purely a business proposition and should be carried out with all the established rules of modern business.

Folder of Fees and Rules

The entrance to the hospital is usually a time of anxiety, and verbal agreements are apt to be

forgotten and thereby later become a fruitful source of misunderstanding. It is a wise plan, therefore, to give the patient or the person who is financially responsible a small folder which contains the fees and rules governing the hospital charges. The following is an example which, of course, should be varied to suit the needs of the particular hospital:

The charge for your room is dollars per day, beginning with the day of admission, but no charge is made for the day you leave unless you stay after 8 p. m.

The cashier is on duty in the main office from 8 a. m. to 4 p. m. each week day. Kindly arrange to pay during these hours.

The room charge includes meals and all extra nourishment; medicines, with the exception of serums, vaccines, antitoxin, mineral waters, etc.; linens and laundry; nursing care by the hospital nurses; ordinary laboratory tests. Many hospitals charge extra for excess laundry, prescriptions and laboratory tests, but we include these in the room fee.

Room rates must be paid one week in advance. If you leave before the expiration of the week, you will be refunded the balance. Please

Playing Safe With Accounts

THE suggestions offered by Dr. Combs are intended especially for inexperienced superintendents who are faced with the problems of delinquent accounts. One of the frequent causes for trouble in this respect is the failure of the hospital to have a definite understanding with the patient, upon admission.

This may be overcome to a large extent by placing in the hands of the new patient a folder stating the rules and fees of the hospital in plain, concise terms. The hospital cannot afford to deviate from these rules and must insist upon payment one week in advance. Another safeguard to the hospital is a business-like method of admitting and discharging patients.

do not ask us to make exceptions to this rule.

For surgical patients, there is a fee for the use of the operating room, usually \$10, but \$15 for certain cases, \$5 for tonsil and other minor cases. This is to pay for sterile linen used in the operating room, the extra nurses, and the subsequent dressings. Maternity cases are charged \$10 for the use of the delivery room, covering the same items mentioned in connection with the operating room. After the baby is born, a charge of \$1 a day is made for its care. If you employ a graduate private nurse, you pay her for her service (\$5 for twelve hours and \$7 for twenty-four-hour duty), but since she boards at the hospital, we charge \$1 a day for her maintenance.

For the benefit of individuals with limited means, we have the public and the private wards for which the fee charged is less than the actual cost of keeping the patients in the hospital. It is not expected that people able to pay actual cost will occupy these beds.

We formerly stated our terms by the week, but now find it better to adopt the hotel plan of making the night the unit of charge. The first para-

graph of the folder above speaks of "per day," but you will discern that the 8 p. m. limit really makes it "per night."

Payment One Week in Advance

In our own case the greatest cause of delinquent accounts was eliminated several years ago when we began enforcing impartially the rule of payment one week in advance with refunds at the same rate. We were fearful at the time that this would make enemies, but experience has shown that prompt payment makes fast friends. At the end of the week a statement is rendered every patient for the ensuing week, and conspicuously printed on this statement are the words, *Payment must be made one week in advance*. Occasionally it will happen that the patient is obliged to stay longer than he intended and his funds will run low at the end of three or four weeks. This is a very delicate situation, but unless some responsible party will give written security for the bill, the patient should be transferred to a lower rate accommodation to insure, at least, the minimum of loss. A transfer of this kind is not at all popular, but should, at times, be resorted to for the sake of being a salutary example to others.

In Indiana, as well as many other states, the workmen's compensation law provides for the payment of hospital bills of injured working men, and it only remains necessary to comply with the provisions of the law in order to secure 100 per cent collections for these cases. The law will allow the average rate of actual cost to the hospital, but does not permit the occupancy of a high-priced private room unless by explicit consent of the insurance company or employer. Furthermore, patients cannot remain in the hospital beyond the prescribed legal limits, without permission. If the hospital will take the small amount of trouble necessary to ascertain the facts at the time of admission, these cases may be left to take care of themselves without further worry.

How Out-Going Patients Are Checked

In spite of all these methods of prevention, however, there will remain small unpaid balances. No patient should be allowed to leave until the ward or floor nurse telephones the office to see whether or not the entire bill is paid. If there is an unpaid balance or refund coming to the patient, the nurse should accompany the patient or relative to the office before the patient is finally discharged. If the unpaid balance cannot be liquidated at the time have the patient or responsible relative sign a promissory note committing him to a definite time for payment. We

find that the formal promissory note is more impressive and more easily collected, although not actually worth any more than a plain "I.O.U."

Those hospitals who do not use the double entry system of bookkeeping will find it extremely difficult to combat this disease, unless such a system is installed. Under the single entry system unpaid accounts receivable can silently disappear from view in old ledgers, and the superintendent and board of directors will be unable to appraise the cause of the annual deficit. With the double entry system, all unpaid accounts receivable must be listed and reported each month. There they remain to stare you in the face until they are finally paid or are boldly charged off by actual name in the journal.

Status Upon Admission Holds

We adhere to the American Hospital Association rule that the patient must be admitted as private, part-pay, or charity, and no change must be made in the initial status after admission. In other words, once you have admitted a patient as a pay case, you should not attempt to evade the consequences of nonpayment by later calling this a charity case. Of course, this is not possible with the double entry system, for when fees are once charged they cannot be erased, and must either be paid or charged off.

To take care of unpaid fees after discharge, we have established a "reserve for lost accounts," crediting to this ledger page two per cent of the patient's income each month. So far we have never exceeded this amount and sometimes stay below it. We have been pleased to note that nearly all of the loss that has been charged off under this account has been due to the part-pay patients and not the private-room patients. In other words, most of the loss comes from patients who might have been charity cases, but rather than enter them as such we allowed them to pay what they could on the ward fees. The two per cent is what we call our mortality rate, and should be carefully watched to see that it does not increase.

The admitting clerk should have an admission blank on which she records the exact name and address of the responsible party and should not be misled by the statement that the doctor said that he would take care of the bill. Avoid letting physicians vouch for bills but, if necessary, do so only under their written signature.

The one thing we want to emphasize is the necessity of going to considerable trouble to come to a definite understanding, when the patient is admitted, and you will have little occasion for trouble later. Be careful that your charity is

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well placed. There is no charity in allowing people of ample means to take undue advantage of the hospital. The hospital is a business and you are entitled to a fair profit on your private rooms. This profit may be applied on a deficit incurred from your part-pay cases, thus making these two departments balance one another. The charity cases are a separate class, and the pay for their care should not come from the hospital's earnings but from tax levies or voluntary contributions. If, in spite of all this, the hospital incurs a deficit, do not ask the dear public to contribute to the deficit which you should and can avoid by better business methods.

CHRISTMAS IN A HOSPITAL AS SEEN BY A PATIENT

Christmas in a hospital! Until you have had the experience you can never imagine the strangeness of it—the dread of the day as it draws nearer and nearer, the effort to keep up one's spirit when everything spells "gloom ahead," the dolorous mein that creeps into the ministrations of nurses, despite their enforced cheerfulness. These are some of the aspects of Christmas to a patient in the hospital.

As I had never been away from home before, the coming of Christmas was something quite different from the accustomed happy day spent with one's family. My soberness in the days before the holidays was shared by dozens of nurses, who saw no possibility of a home Christmas, and for many of them too, it was the first Christmas away from their families.

Christmas Eve was so sober and gloomy that it seemed as if the bottom of the world had simply fallen through completely and could never be regained!

There were some 150 nurses, most of them from homes outside Chicago, whose work was to keep them there all of Christmas Day. One nurse was from far-off California, and by Christmas Eve not even a letter from home nor the suggestion of a package had reached her. A blue lot we were indeed! But we went to sleep and for a while forgot our troubles and then . . .

Christmas morn was upon us. About 6 o'clock in the morning came the soft sound of singing from somewhere. Sweeter and a bit louder it came, and when the night nurses had thrown open the room doors, patients could see the procession of white gowned nurses passing through the corridors singing Christmas carols. The singing over, in came the day nurses, imbued with the spirit of the day, and emanating a contagious Christmas atmosphere. After the climax had been reached and passed, it was not hard to be happy the remainder of the day.

Then came breakfast and then the mail—never so joyfully welcomed. Cards to the number of more than a hundred, packages that carried all the fascination that comes to childhood with a Christmas stocking. The morning was not long, and then the turkey dinner was served with holly sprays adorning the trays and the patients' names inscribed upon them—a merry Christmas greeting from the hospital. There were but few visitors, for

homes called and kept the well ones there and it was the wish of us sick ones that they find their customary pleasure there without us. The Sunday previous to Christmas had been a record day for visiting, for there was hardly a patient who did not have some member of his family with him that day.

Before we had time to grow sober and lonely, the day was gone, the night had come and Christmas in the hospital became a pleasant memory for at least one patient.

UNION AGAINST TUBERCULOSIS PUBLISHES BULLETIN

The International Union against Tuberculosis founded in 1920 has recently published the first number of its bulletin. Twenty-four countries are now affiliated with the union whose affairs are directed by an executive committee and a council which meet once a year. The first conference was held in Paris in 1920; the second in London, 1921; the third at Brussels, 1922; the fourth at Lausanne, August 5-7, 1924.

The union, formed primarily among nations signatory to the covenant of the League of Nations, includes the United States. Its objectives are to coordinate the efforts of all organizations engaged in a campaign against tuberculosis and to collect and distribute information on questions concerning this disease.

MISS WOOD SUCCEEDS MISS GRAVES AS MT. SINAI HOSPITAL DIETITIAN

Miss Bertha M. Wood, formerly diet supervisor, Northfield Seminary, East Northfield, Mass., has succeeded Miss Lulu G. Graves as supervising dietitian, Mount Sinai Hospital, New York, N. Y. Miss Wood will continue the work which has been carried on for the past few years at the institution by Miss Graves who introduced a system for the training of student dietitians as well as developed the post-graduate teaching of medical men in the diseases of metabolism.

Miss Wood has had wide experience in the teaching of dietetics and in dietetic research. During the early days of the war she did government food work and later went to establish a food clinic at the Boston Dispensary.



How the children at one of New York's Schools for Crippled Children receive their packages of cheer.

BRINGING METROPOLITAN HOSPITAL SERVICE TO SMALL COUNTRY COMMUNITIES*

BY DENVER M. VICKERS, M.D., RESIDENT SURGEON, THE MARY MCCLELLAN HOSPITAL, CAMBRIDGE, N. Y.

THE word "hospital" ordinarily brings to mind a thing of concrete and steel, of halls and corridors, of kitchens and beds, and the equipment making up the physical plant of the hospital itself. But that is just half of the story; the static rather than the dynamic; the empty shell rather than the living organism; for the living hospital is synonymous with the work going on inside, of patients being treated, operated and healed, and sent home better able to do their work in the world. In addition to being a good machine, the wheels must go around. In this modern age, it is results that count.

The results or the products of the hospital-machine are dependent, therefore, on the two factors, the plant itself and the way the work is done. The plant should be adequate. Any workman deserves good tools. The wards and rooms should be of modern construction; the diet kitchen should be clean and convenient; the operating rooms must be efficient and well equipped; the laboratories and x-ray facilities must keep up with modern requirements; but after all this we should remember that the actual work done depends on the skill and care of the attending physicians and surgeons.

The reputation of the hospital must mean something more than spotless walls and pleasant lawns. It must be something more than a beautiful show building. There must be competent surgeons and skilled physicians who can and will do their best work for the patients of the hospital. There must be men who know how to make the best use of all the facilities offered and by careful, continued, accurate treatment bring to the

hospital an enduring reputation.

The reputation of any hospital among the townspeople is dependent largely on that of its staff. A hospital is known by the physicians it keeps. The laity judge by gossip, often distorted, but usually with some basis of facts, as to results. So-and-so stayed there a month and was worse than before. Somebody else went elsewhere and was cured in two weeks after her operation. And the medical profession outside

measures a hospital by the professional standing of its medical staff.

In a large metropolitan institution, the method of obtaining a satisfactory staff is obvious, though of course, presenting its difficulties of organization. The physician or surgeon-in-chief are those men who have made a reputation for themselves in their specialty, have a large, lucrative practice and are probably on the teaching register of the local medical school. They are well-known authorities on their subjects and perhaps have written text books. These men are at the head of their specialty in the hospital.

Under these, come the assistants, associates, the surgeons and physicians who do the bulk of the work, with of course, the advice and consultation of the more experienced, more skilled men. And working with these are usually interns, residents, and others, depending on the size and organization of the clinic. If the hospital is a "closed" one, the organization is quite military, with responsibility passing up and down, and lines of authority sharply recognized. If the hospital is an "open" one, the unofficial rating and practical privileges of the staff members vary in the degree of their proficiency and the ultimate result is the same.

A Goal for the Small Hospital

THAT the hospitals of small communities can have the services of highly qualified physicians and surgeons was explained by Dr. Denver M. Vickers, in his paper read before the small hospital section of the Buffalo conference, through a method adopted by the Mary McClellan Hospital of bringing metropolitan service to a large section of Washington County, N. Y.

In this hospital it is done largely through the organization of the staff which is composed of the local near-by practicing physicians, the consulting or attending staff, and the resident staff composed of recent graduates of medicine with previous hospital training. The method eliminates loopholes for petty rivalries and makes for a high degree of co-operation between the three groups.

*Read before the Small Hospital Section of the American Hospital Association, Buffalo, N. Y., October 6, 1924.

The smaller hospital in a city, or on the outskirts, tends to become the plaything of one or a small group of surgeons or physicians, who do their private work there. Or a smaller public or endowed institution for the poorer classes draws a part-time staff suitable for its needs from the available and properly trained men near at hand.

But in a smaller, country community, or in a village or town, the problem is an altogether different one. The country doctor is a hard-working, conscientious physician who does a world of good, and is beloved by his patients. This type of man is most valuable and necessary, and should be encouraged as much as possible.

Skilled Treatment Needed in Country

But these men have not the time or the inclination to acquire or maintain a skill in operative surgery or in the details of modern medical diagnosis and treatment. But the people in the rural districts are just as apt to have pneumonia and acute appendicitis; are just as apt to need skilled care in treatment of their fractures, as their brethren in the city. Although the great majority of their ills can be treated perfectly satisfactorily in their homes, by their country physicians, a small proportion must have skilled hospital attention.

So, assuming that a hospital is built in a town or village, in a rural community (and half of our hospitals are in towns under 10,000) who will staff it? Will you depend entirely on the local doctors? Will you have consultations by outside men from the cities? Who will do your surgery? Will staff jealousies prevent any further additions to the medical register? If you get a laboratory and technicians who can do blood counts and basal metabolisms, who will interpret them? You may spend thousands to get a good x-ray machine, but who will tell you what the picture means when it is taken.

The fact that country physicians frequently send their patients to the nearest city for consultation, or at greater expense, have the consultant come out, acknowledges the need and the problem to be a real one. The small village or the sparsely settled farming districts from their nature cannot maintain or expect to keep a skilled surgeon or a medical internist, but some solution of the problem must be found.

The working out of this problem in a specific instance will be the subject of this paper. I will try, first, to give you a brief idea of the hospital plant and its surroundings, and the territory from which it draws its patients.

The hospital itself is located in a village of

about a thousand inhabitants. Within a dozen miles, there are perhaps a dozen villages and towns, varying in size from a few hundred to a few thousand, with in between a more or less thickly settled farming district devoted mostly to dairying. The area of influence of the hospital is not confined strictly to the borders of the county (which, incidentally, has no other hospitals) but neglects a portion of it and spreads over the edges of others. The nearest city is thirty-five miles away, of something under a hundred thousand inhabitants, but the railroad service is poor. The greatest numbers of people come and go from the hospital in automobiles, and the range of an automobile drive is a usual measure of the line of contact of the hospital.

The hospital is a stone structure, accommodating fifty beds, well built, four stories, with ward space and private rooms for medical and surgical cases and obstetrics. It is rated and approved by the American College of Surgeons. There is space for offices, dining rooms, laboratories, x-ray and an ample operating room. The hospital is new, but five years old, and the building and equipment are modern and up-to-date. The nurses' home is a new separate building within several hundred feet. The hospital building is surrounded by lawns and a multitude of young pines. The garden raises the vegetables needed for the table and the walks are bright with flowers in summer. The hospital grounds are about fifteen minutes' walk from the station and the village post-office. The hospital derives its income from fees collected and also from interest on a considerable endowment.

Staff Made Up of Three Groups

The members of the medical and surgical staff are divided, as a whole, into three groups; first, the local and near-by practitioners; second, the consulting staff, and third, the residents.

The local physicians are good, hard-working general practitioners who drive their cars through muddy roads and care for the bodies and souls of their patients. There are several in the village itself, and others in the near-by towns who are within easy distance. These men, after a review of their character and ability by the board treat medical patients in the private rooms, do minor surgery and care for obstetrics in the private rooms and wards of the hospital. The amount of hospital practice that these men do varies from time to time. Many of them bring their difficult cases of obstetrics into the hospital, where they may use forceps, or care for them as they see fit, under aseptic, institutional precautions. Many cardiacs, who cannot be held under discipline

among their families, and attain the necessary physical rest, are cared for at the hospital under the direction of their home physician.

The second group, the consulting staff, is made up of men of note in their respective specialties of medicine, surgery, urology, obstetrics and radiology, living at distances of from forty to 200 miles, and coming to the hospital, either at regular intervals of weeks to months, or whenever there is a patient who needs attention.

The senior medical consultant is at the hospital every Monday morning, sees the patients that need his care in the wards and private rooms of the hospital, and such out-patients as come to see him. His fees are moderate and are collected by the hospital. His salary comes direct from the hospital and is not dependent on the fees collected. Thus, there is no reason for requesting repeated unnecessary visits, or in taking patients from the local practitioners.

The chief surgical consultant comes to the hospital once a month, formerly every two weeks, usually coming in the evening and leaving the next noon, seeing patients that evening and the next morning. He formerly was paid directly by the hospital, but recently has been allowed to collect his own fees, through the hospital office, with a smaller guarantee for his visit.

These men are professors of their respective subjects in the medical schools in the cities in which they reside and men whose opinion carries considerable weight. The surgeon operates on patients who are at the hospital at the time of his visit and suggests surgical treatment to patients who are under the care of their local physicians. The local men are notified as to the time of these visits and bring their patients to the hospital for consultation. They thus have regular chances of getting acquainted and have learned to put confidence in the opinion of these consultants from former experiences.

The consulting urologist is likewise of experience and reputation, but makes visits only when there are patients coming under his specialty. He collects his own fees, through the hospital office, but at the time of his visit sees patients who could not afford to pay for a special consultation.

The oto-laryngologist makes regular visits once a month; sees patients with diseases of the nose, ears and throat, and does tonsillectomies and mastoids when necessary.

The consulting radiologist reviews questionable x-ray films by mail, comes to the hospital at intervals for personal radiological examination of patients and consults personally and by telephone with the other members of the staff. His part in the staff program is invaluable.

There are a number of others on the consulting

list, who make visits at intervals, operating on patients who especially desire their services, caring for special diseases, etc.

The chief surgical consultant and the chief medical consultant are directly in charge of their services and must put their approval on the history of every patient after discharge, before that history may be filed and the case closed.

So far, the staff does not differ materially from those in similar hospitals elsewhere.

The Resident Staff

The third division, the resident staff, is composed of two younger men, living on the hospital grounds and spending all their working hours in its service. These men are graduates of reputable medical schools, with previous internships in large, metropolitan hospitals and good training. They have had surgical experience, and are competent to operate in major or minor surgery and to care for such surgical emergencies as acute appendicitis. They also care for a considerable service of obstetrics, both normal and abnormal, and a medical service of more than average proportions.

These men are on a salary from the hospital; the fees for consultation, operation and delivery are collected by the hospital and only indirectly influence the size of their salaries. They go outside the hospital, only to see patients in consultation with outside doctors and have no outside practice of their own. They care for a considerable number of out-patients or office patients, doing dressings, setting fractures and caring for minor medical and surgical matters. They see all the patients in the hospital every day; thus the local man who delivers a patient in the hospital may feel sure that no great disaster may occur while he is away, without his being notified and without someone being at hand. For this service, there is no direct charge to the patient.

Responsibility on Resident Surgeons

The responsibility for the surgical patients in the hospital comes directly on the resident surgeons and the consulting man who operates. The consulting surgeon, who operates at his visit, is assisted by the resident and leaves his patient under the care of someone who is familiar with his technique and customs of treatment, and who has surgical judgment and skill to care for minor questions that arise.

The resident surgeons operate and have complete charge of the patients in the intervals between the visits of the consulting surgeon, and may consult with him about the case at his next visit. The residents at intervals visit the foremost clinics of the country, endeavoring to keep

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The resident is also director of the laboratory with a technician in charge. Blood counts, urinalysis, blood chemistry, Wassermanns, tissue sections, etc., are done with modern apparatus and methods. This service not only is used in the hospital itself, but the outside men bring in specimens for examination, cultures are taken, etc., and the significance can be discussed with a younger man who is more familiar with modern technical examination. Again, the opinion of the consultant may be obtained, if desired.

The local physicians bring in their patients for x-ray and have the picture taken by a skilled technician, for a moderate fee, and may consult the resident about the interpretation without charge. The plates are reviewed by the consultant, if there is doubt as to the diagnosis.

Staff Conferences Once a Month

Regular staff conferences are held once a month, at which times, the entire staff goes over the cases of the previous month, and their significance discussed. The attempt is made to make these meetings open forums for the men, who can talk with each other about cases, obtain new viewpoints and aid the other fellow who may have similar troubles.

The keynote of the system is the resident surgeons. These men do no outside practice and so do not invite the jealousy of the local men. They are on a salary and thus have no hesitation in requesting consultations or in referring a patient to his local doctor. They are surgically trained and can operate, if necessary. The patient's good is foremost.

Hospitals caring for surgical patients should have someone in residence, or within easy call, to care for such surgical emergencies, as are bound to arise from time to time. Post-operative hemorrhage, disarrangement of fractures, urgent traumatic surgery, etc., etc., are things that are bound to happen to the best of surgeons and there should be someone near at hand to care for the emergency. Here, the residents combine that work, that may be done by an intern in a larger institution with enough work of his own to make the whole worth while. An intern in this particular instance, would be either too much under foot, or of too little experience to trust entirely in the more serious matters, in the continued absence of the consultants. The community cannot afford a skilled surgeon or a specialist in internal medicine, but the residents, by their continued contact with the consulting men, are bound to pick up considerable skill in both medicine and sur-

gery. The consultants are thus generally helpful to the residents and the local men, the residents often furnish the link between the consultants and the local practitioners, and the local men have at their disposal medical skill and attention of the best sort.

The bulk of the work is done by the resident surgeons, whose judgment is trained and backed up by the older, more experienced men. The local men are not supplanted, but helped. They are not interfered with in the treatment of their cases at home, and if they need help they may consult with someone who will not treat the patient at his own home as they do, but who can have a disinterested point of view, to do all to help the patient. The local men may use the hospital if they wish, but if they find surgical complications arising, they know where they may find at any time a competent surgeon. The residents are much freer to act than an intern who takes histories and carries out the orders of his attending surgeon. These men do the bulk or the drudgery of surgery and save the difficult cases for their consultants.

Qualified Workers Needed

One of the most difficult of all problems of a small hospital, in a country community is the question of staff. The available local men, while they may be conscientious, hard-working, country physicians, who do a world of good, are unable, from the pressure of their work, to acquire or keep up a training in operative surgery or in the details of modern laboratory methods of medical diagnosis. To bring to one of these more or less isolated country communities the same or corresponding opportunities of diagnosis and treatment available in any larger medical center, is the ideal in mind in the founding and building of this hospital.

Adequate Physical Plant

The physical plant, in an undertaking of this sort must be adequate; the kitchen must be well run; the nurses must be well trained; but in addition, the laboratories must be able to take good x-rays and the staff able to read them; they must be able to do blood counts, blood chemistry and determine the basal metabolism and there must be some up-to-date internist available to whom this information will mean something; acute appendicitis, carcinoma of the stomach and fractures are just as apt to develop in rural communities and there must be someone who is qualified to give proper surgical relief.

In this hospital, the staff is made up of three groups; first, the local and near-by practicing

physicians, who care for medical patients in the private rooms, do minor surgery and obstetrics and have use of the laboratory and x-ray facilities; second, the consulting or attending staff, made up of men of note in their respective specialties of medicine, surgery, otolaryngology, radiology, obstetrics, etc., perhaps living at quite a distance and coming to the hospital, either at regular visits, weekly or monthly, or whenever there is a patient of the hospital that needs the care a specialist can give; and third, the resident staff, younger men, recent graduates of medicine, with previous hospital training, especially in surgery who are on a salary from the hospital, and do no outside practice, except as called in consultation by other physicians.

The residents, therefore, have no immediate interest in taking patients from the local men, and are not afraid in turn to refer their patients to their specialists, if necessary or indicated. They thus are ready to help both groups of staff.

The residents and local physicians are thus kept in closer contact with the progress of medicine by many and frequent consultations with the attending staff, their own diagnostic ability is made more sure, and they can bring their difficult problems of diagnosis or therapy to someone at hand, in whom, from previous experience, they have confidence. Surgery can be done by able experienced men and the after-care entrusted to a surgeon, constantly in attendance, familiar with the technique of the operator and able to operate himself. This brings to the people of the village and the surrounding territory an available medical service, perhaps a bit slower and more cumbersome, but in most details well up to many of the larger, metropolitan centers.

CHRISTMAS AT STANFORD UNIVERSITY HOSPITALS

By MARIAN HILTS, A.B., Stanford School of Nursing, San Francisco, Cal.

THE Christmas festivities last year at the Stanford school of nursing were ushered in by the presentation of the play "Florence Nightingale," on Wednesday evening, December 19, by the members of the class of 1926, section 2, to celebrate the completion of their preliminary course. Pains-taking care with the settings and costumes made the play picturesque; the sympathy and enthusiasm of the actresses make it charming; the appreciation of the large audience gave a reactive zest to the performance.

On the next afternoon the Stanford Clinics' auxiliary had a Christmas tree for the clinic children. The tree, which had been sent from Oregon by one of the graduate nurses, was set up in the auditorium of the nurses' home. It was gaily decorated and hung with bulging stockings of various sizes, suitably labeled for each of the 350 small guests; heaped at the base of the tree were quantities of fruit and candy. To entertain the youngsters the student nurses sang Christmas carols, friends of the auxiliary

danced and sang Mother Goose rhymes, and a professional magician produced mystifying gold fish and guinea pigs from a silk hat.

Santa Claus thereafter seemed to come just at the right time, and not one identified him as one of the interns. In the making of this particular Christmas pie the school of nursing had a finger also, in the form of a donation from the class of 1925 toward the expenses.

The Stanford student nurses' club seasonally adopted a family with seven children, which had been recommended by the social service department. Two plays given during the autumn by the club members netted \$50, which was now expended in securing a happy Christmas for these youngsters. Besides the huge turkey, which was roasted by the hospital chef, and all the "fixings," the mother was given grocery orders for 100 pounds of potatoes and other staples. Various people, interested in the club, sent gifts of clothing and toys for the children.

On Christmas Eve, the class of 1926 were hostesses at "open house" in the nurses' home. The big tree had been brought from the auditorium and set up in the lounge, decorated with colored electric lights and gay little twinkling gumdrop men and animals. Homemade candy, cakes and coffee were served until midnight, so that the students coming off duty at 11:30 should be included in the celebration. A friend of the school had sent logs which crackled with true Yuletide cheer in the fireplace of our attractive reception rooms. Shortly before midnight the students and guests scattered to the churches of their choice for Christmas services.

Early Christmas morning the nurses followed the annual custom of singing carols as they marched through the hospital corridors on their way to breakfast. The dining room where staff and students assembled together, had been charmingly decorated by the class of 1925. A bounteous dinner was prepared for those who were on duty at noon. California sunshine and flowers and nearby homes lured from the hospital all who were at leisure.

The social service department had placed a tree in each ward, and the nursing department had hung greens everywhere. There were Christmas packages for every clinic patient, fruits and cigarettes for the young men, pipes for the old, a handkerchief and a little box of toilet articles for the women. Of course Santa Claus visited the children, and emptied for them an immense bag of toys.

The Christmas season was closed a few days later by the "Christmas Jinx," given for the students by the nursing school staff. It was a masquerade affair, followed by dancing and a buffet luncheon.

As a result of all these activities, the holiday at the Stanford University Hospital and the nurses' home was filled with the joy and cheer of Christmas.



RECEPTION BUILDINGS OF CENTRAL ISLIP, KINGS PARK AND MARCY, N. Y., STATE HOSPITALS*

BY SAMUEL W. HAMILTON, M.D., DIRECTOR, DIVISION ON HOSPITAL SERVICE, NATIONAL COMMITTEE FOR MENTAL HYGIENE, NEW YORK, N. Y.

THE civil state hospitals for the mental patients of New York number thirteen and house 38,000. The census has been rapidly rising in the last few years, due to a variety of causes that are operating throughout the country. To digress for a moment, it is obvious that while these causes continue to operate, institutional provision for the mentally ill must be increased; hence the importance of careful planning of new buildings for such hospitals. The most important of these causes are: (a) Improvement of hospital standards, which always results in greater willingness on the part of relatives and friends to send sick members of their families to a hospital; (b) drift of population to the cities; many patients whose oddities of conduct might be overlooked in the country cannot remain at home in the city because of the notoriety which their behavior involves; (c) increase in number of persons in middle life; the average span of life has arisen from forty-eight to sixty years, with a consequent increase in diseases characteristic of the sixth decade, such as cancer, cardiac troubles and arteriosclerotic brain diseases.

Since building projects are usually in progress at several of the New York state hospitals at one time, it is often possible to use the same plans for structures in different institutions. This was done in 1908 when similar reception buildings were erected at Binghamton, Hudson River and Utica state hospitals, and at other times identical plans

The most recent application of a so-called standard plan in several localities is that of the three new reception buildings which have been erected at Central Islip, at Kings Park, and at Marcy. Only a few minor changes have been made at the different hospitals, so that one description will fit the three buildings.

An Important Project

This is a large and important structure, planned to house 100 patients of each sex, the most recent admissions to the hospital. The admission rate in 1922, the latest year for which figures are available, was 1489 to Central Islip and 1144 to Kings Park. The Marcy¹ institution is a new project operating at present as a branch of the Utica State Hospital, from which it is only seven miles distant, hence the admission rate for the new institution cannot yet be calculated. It was planned to accommodate 2000 patients when completed, but at present houses only a few hundred.

The building is a three-story brick and concrete structure, highly fire-resistant. The rafters are of wood, but since the attic floor is of reinforced concrete no serious damage would come from destruction of the roof. That these buildings are fire-resistant is highly creditable to the authorities directing the policy now followed in New York state institutions. It is to be regretted that the architect arranged to place patients on three stories. Experience shows that, under present



Front view, reception building, State Hospital, Marcy, N. Y. The new reception buildings at Kings Park and Islip are identical.

were used for several superintendents' residences and several staff houses.

*The writer is grateful to the superintendents of these three hospitals, Dr. George A. Smith, Dr. William C. Garvin, and Dr. Richard H. Hutchings, for courtesies extended during this study; and for the assistance of Mr. Thomas B. Kidner, institutional secretary, National Tuberculosis Association, for many helpful suggestions.

standards of nursing in our mental hospitals, the higher the building, the fewer of the upstairs patients who will spend much time out of doors.

1. New York's new state hospital. By Everett S. Elwood, *THE MODERN HOSPITAL*, Vol. 14, p.—June, 1920.

The front of the building is imposing and well proportioned. One enters across a porch. Its upper stories are supported on four well-designed pillars (at Central Islip, piers). The visitor turns naturally to the right where a broad entrance invites him into a reception room fourteen by seventeen feet. An information desk placed here will serve its purpose admirably. Across the hall is the office for the building, of the same size as the reception room, and off this a stenographer's room eight by thirteen feet. It may be that the physician will find it desirable to place himself in the smaller room, and have the stenographer nearer the point of entrance. These rooms are provided with good closets.

The right wing of the building is for men, the left for women, and a central partition separates the two. A person may pass into either section of the building from the entrance corridor. The office and reception room have their own doors opening into longitudinal corridors that serve the wings.

Examining rooms have been provided in this central section, opening off the longitudinal corridor. That for women is smaller and not so well lighted, since its window opens on the patients' porch. The one for men is eight feet wide and almost twenty-two feet long, and has an outside window. It will serve very well for such cases as the physician in charge may wish to have brought to a point near the office for examination. The primary purpose was apparently to bring to this room newly admitted patients and there make preliminary examinations. Since admissions to Central Islip and Kings Park are by the carload from the metropolitan psychopathic services, a room like this will serve only a limited purpose. There are, however, rooms in the ward which can supplement these. Near each examining room is a single toilet, and on the men's side a janitor's closet of good size, so that cleaning equipment can be kept in it.

Across the hall from the examining rooms is a stairway leading both up and down, and an exit to the rear of the building. These stairs have slate treads and the landings also are floored with slate.

From the longitudinal corridor one passes into a day room, which is a very pleasant, well-lighted

place twenty-four by forty-nine feet. On the front is a porch with four large arches and a central doorway with mesh grating. The floor of this porch has been placed several inches below that of the ward, and there is a slightly raised metal threshold under the door. A better arrangement, we think, would have been to make the floors of the building and porch flush, and to place no obstacle in the way of pushing a bed on casters through this door or taking a food truck through it. Beyond the day room is a T-shaped corridor, the front section of which opens into two dormitories. These two were designed to hold about

thirty patients between them. They are well lighted and ventilated. At one of the hospitals a large opening has been cut between the two dormitories high above the floor and a mesh guard installed, thus affording additional ventilation.

At a point convenient to dormitories, day room and single rooms, is the lavatory with three hoppers and three washstands. These hoppers have been sep-

arated by sani-metal partitions, giving patients a degree of privacy. The hoppers are hung on the wall and none of the flushing mechanism is in sight. On the wall behind, at a point easily reached by the patient's hand, is a button, the pushing of which flushes the toilet. Wash basins, as is usually the case, are set too low, though if there were children in the building they would find the height quite convenient. Both hot and cold water are controlled by buttons attached to spring valves. This arrangement is economical of water; since it is not feasible for a person to wash his hands in flowing water unless they are both free, this apparatus does not permit one to cleanse his fingers thoroughly except by filling the bowl. A so-called slow-closing valve can, at some future time perhaps, be used in these fixtures. There is a pipe chamber on each side of the lavatory, an admirable arrangement; the pipes being accessible to the mechanic but out of sight of other persons.

A shower room was equipped with two shower heads; in one hospital a rubber hose has been substituted for one of them. The shower heads are set at an angle so as to throw the water on the patient's shoulders, an arrangement far preferable to having it beat down on the head. The



Side view of the reception building.

control valve is rather close to the point where one of these torrents will descend. Next to the shower room is a linen room, somewhat too small, and beyond is a clothes room eleven feet three inches by twelve feet eight inches. This does fairly well. An ideal arrangement for such rooms is one in which the patient can undress, a clothes room so placed that fresh clothing can be handed him immediately after the bath, and another room or alcove in which to dress. In this building the hall may be used for certain of these functions. At one corner of the clothes room, but opening into the hall, is a spacious clothes chute into which no patient is yet reported to have jumped.

Absence of Central Control Regrettable

Across the corridor from the clothes room is a small lavatory, a utility room, and a record room. The utility room is well placed, if all bed patients will be in the four single rooms; otherwise, with its bedpans, water bottles, and so on, it is at a long distance from the patients who are to be served by it. The record room is without special distinction. One may regret at this point that central control was not studied on this ward. There is a point between day room and rear corridor—now a platform serving a ramp—which, if made into a nurse's room with glassed walls, would have given observation of practically all the activities of the ward.

This building differs from most in that it has a series of ramps. There is no elevator. Opinions differ about the advisability of this construction. Ramps, to be sure, provide an easy route for per-

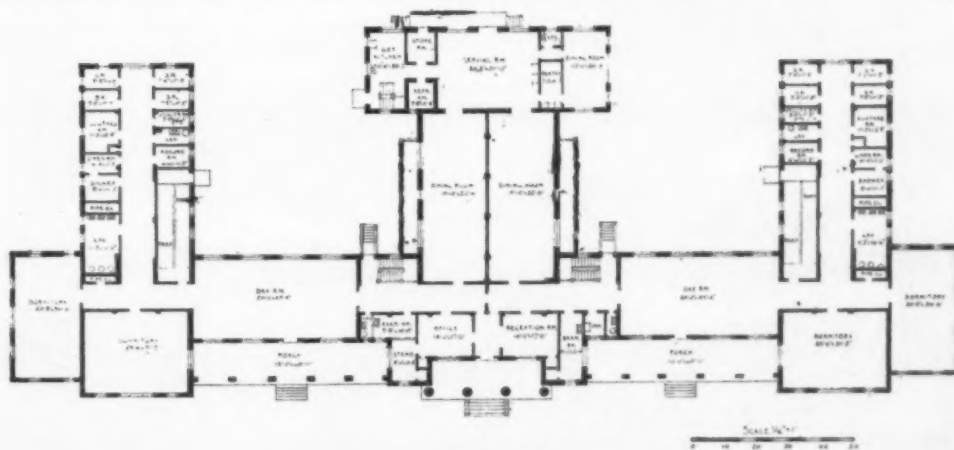


Basement plan, Kings Park reception building.

sons with plenty of leisure to go up and down. In practice, most people prefer stairs. If feeble persons are quartered on the first floor they find it easy to get out of doors, and when quartered above the first floor they are apt to prefer an elevator to walking up and down. Possibly there is less likelihood of injury to fingers on a ramp than in an elevator whose collapsible lattice door is not a sure protection for those who are careless about their safety. It must be said, however, that liability to slipping and falling heavily on the coccyx is considerable on a ramp when it is supplied, as in the present instance, with Mason treads, which become slippery. Indeed, the only safe surface for ramps appears to be corrugated rubber strips cemented to the floor. It may be said again that whether the space occupied by ramps could better be used for some other purpose is a matter about which there are two opinions. Perhaps a few years' use of these three buildings will settle the question for mental hospitals.

Dining Room and Kitchen Arrangements

To the rear of the center is a large dining room space which in the metropolitan district has been divided lengthwise by a partition not reaching to the ceiling. At Marcy this partition has been left out, making a much more attractive room. It is unfortunate that a number of pipes pass down through this room from the hydrotherapy suite above. To the rear of the patients' dining room is a service room, about twenty-four by thirty-one feet in size and apparently large enough for all the operations that should be car-



First floor.

ried on there. The floor is of red quarry tile and the roof has a skylight. At the center is a dishwasher and liberal provision of table space. There is an employees' dining room and lavatory at one end, as well as a pantry. At the other end is a store room, a single refrigerator, a diet kitchen and a stairway leading to the basement. There is some question as to whether this diet kitchen is well located, since it is at a great distance from patients' quarters.

At Central Islip and Marcy a corridor leads from the serving room to a kitchen whose plans have not been included in this article. It is a well-arranged structure with small dining rooms for various groups of employees at one end, a scullery on the same level at the other end, and an outside refrigerating garbage room. The floor of the porch from which the garbage room opens, is an inch below the floor of the kitchen, and garbage cans are already causing a slight chipping of the edge of the step.

On the second floor the ward layout is the same as on the first. At the front of the porch are piers instead of arches. It may be noted that at Marcy the day room on this story has been filled with beds and the end dormitory serves for a day room. One purpose was to place a few extra beds on this floor and lessen the capacity of the dormitories on the first floor, where new patients will be quartered. It should be remembered that admissions at Marcy will be scattered through the month and will not be so numerous as those to the hospitals of the metropolitan district.

Location of Hydrotherapeutic Equipment

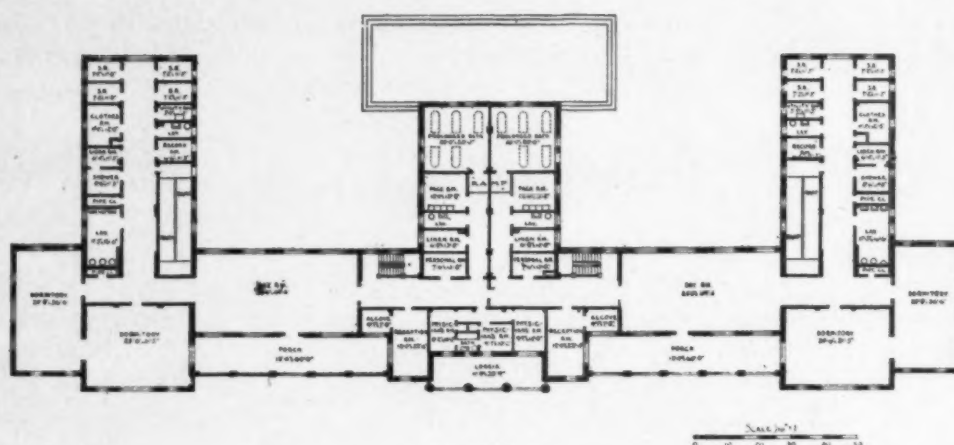
In the center of the building are reception rooms, quarters for physicians in front, and two

hydrotherapeutic suites at the rear.

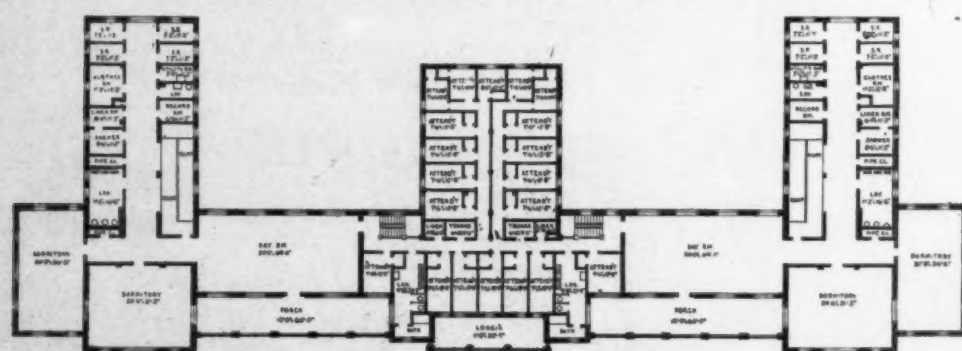
Under this arrangement there is an L-shaped room for each sex in the center of the building, the idea being that during visiting hours the patients will be brought here from the ward. Of course it would be necessary to have an employee specially on duty at this point throughout the period of visiting. At Central Islip, it is planned to use one of these reception rooms for a physician's office and examining room. It is previously noted that the need for a number of convenient examining rooms in the wards has been somewhat overlooked in this building.

At Marcy one of these reception rooms is used to quarter an employee, and the other has been added to the physician's suite. This suite consisted originally of two bed rooms, a bath, and a sitting room. Their size is far from excessive, but they are not unattractive for unmarried physicians or those with few children. All three rooms have windows opening onto the loggia, and each bedroom has one closet. The bath room has a good tub but no shower.

In the dark angle at the rear center are two rooms which can be used for storage of trunks or other property. They might well be equipped with special vents. Next on each side of central corridors is a linen room apparently designed to serve the hydrotherapy section. Next is a lavatory. Unfortunately the plumbing of the toilet seat here is quite vulnerable, although it may be used by the disturbed patients in the prolonged bath. There is a pack room with a dish sink and a slop sink. Pack rooms in some hospitals are used considerably, several patients being under treatment at one



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A dining room for the reception building.

time. The New York hospitals more often keep the packed patient somewhere in his ward. At the end of this corridor is a short ramp leading to the room for the prolonged bath which has connections for five tubs, although it is doubtful whether that many will be installed. The floor is of white tile but the walls can be painted some dull color so that the patients in the baths will not be troubled by the glare. If the windows on the side of this room are left open while noisy patients are under treatment, other patients in a considerable section of the building will be disturbed. If only the rear windows are left open the noises will be dissipated across the serving room. This equipment is provided for each sex.

It will be noted that under this arrangement a disturbed patient must be taken, perhaps from the farthest corner of the ward where he was already in a single room or from a bed in a dormitory through the day room where quieter patients are seated, along a corridor of considerable length, and up a short ramp, in order to reach the room where the prolonged bath is located. This is an inferior arrangement. Baths to be used most often should be easy of access. One may regret also that they are installed on only one of the three stories of this building, for such centralization does not lead to their extensive use.

On the third floor also the ward plans are like those of the lower stories. It may be noted that there is considerable reluctance on the part of superintendents to quarter patients on this floor, but the attendants' quarters are fully used.

Employees' Quarters on Third Floor

All the available space in the center of the building is divided into attendants' rooms and each room has a good-sized closet. It will not, however, in all cases take even a locker trunk. The five rooms at the front of the building have

windows opening onto the loggia. A question arises here as to whether this arrangement will be ideal when the time comes that women are quartered on one side of the center and men on the other; there will needs be an agreement then as to which will sit or walk on the loggia when both sexes are in their rooms. A tub has been provided for each sex, but no shower.

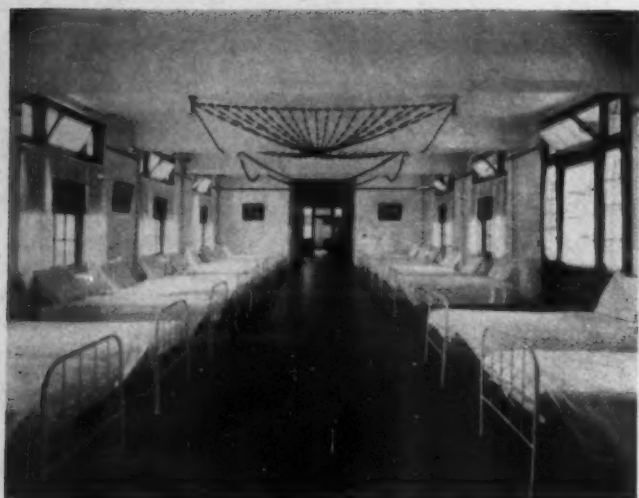
The basement contains extensive unassigned spaces, some of which can, doubtless, be put to good use. Under the dining room is a hydrotherapy suite where douches and cabinets are expected to be installed. Whether this section will be sufficiently well lighted and ventilated to make such an arrangement entirely acceptable is a question. It is easily accessible from the stairs leading to either side of the house.

Under these stairs is a generous space which has been used for the storage of brooms and floor polishers. This use of the space is praiseworthy, but it is to be regretted that such things cannot be conveniently kept on each ward. The Marcy building has been equipped with sani-metal cabinets for brooms, but these of course are too small for floor polishers.

Rooms to be occupied by patients are covered with a good quality of linoleum cemented to the floor. Lavatories, bath rooms, and the like have white tile floors. All baseboards are coved. Electric switches for dormitories and rooms have been placed inside and are of the familiar double button type used in residences. Needless to say, much annoyance is caused by the playfulness or obstinacy of certain patients who keep pushing these buttons at night. It will be desirable to substitute a key switch, since it is too late now to place the switches in the corridor outside the dormitories and rooms. There are no baseboard lights. Slab doors have been used. While new, they are quite attractive, but it is to be feared



A view of the sitting room of the reception building.



A dormitory of the reception building.

that the veneer will become loose and unsightly at the corners. These doors are three feet wide and the narrow beds used in the building can be easily carried or rolled through them. No radiator screens have been installed.

Building Deserves Careful Study

Again it may be stated that this is an important building, attractive in appearance and resistant to fire. Its height is objectionable and the interior planning in several regards, such as central control, location of hydrotherapeutic equipment, and provision of convenient examining rooms for physicians, has not been well studied. It is to be hoped that the good features of the building will be copied by architects who plan the reception buildings of the future.

HOSPITAL ASPECTS OF HEART DISEASE

Attention is focused upon the problem of heart disease which in many parts of this country, now occupies front rank in the mortality rate, in a group of informative articles in the *Survey Graphic*, November 1924. Of interest to the hospital are many things brought out by the authors of these articles who present facts of significance in the prevention and treatment of heart disease.

In the opening article, Dr. Haven Emerson, professor of public health administration, Columbia University,

New York, N. Y., states that ten per cent of the total bed capacity of our general hospitals is used year in and year out for the care of patients with heart disease. Twenty-five per cent of all visits to our city dispensaries, he claims, are made by heart patients.

One article of the group "Saving Hearts in Your Own Town," by Dr. William H. Robey, makes reference to the study in New York where it was found that the cost of hospital care for the acute stage of heart disease is at least \$70 per patient on each admission, and for convalescent or chronic care, not in general hospitals, each patient costs from \$150 to \$650, according to the length of stay permitted. Not less than six, and probably at least twelve, beds are needed for the convalescent care of heart patients per 100,000 of population and for that same 100,000 of population there is needed at least 300 hours a week of heart clinic service.

In the years studied (1920, 1921 and 1922) patients with heart disease cost the city of New York \$607,280.88 for hospital bed care, and \$159,704 for convalescent home care. The cost, of course, includes only the comparatively small number of persons who reach institutions, and measures only the cost of the medical care. Considerably more than half a million dollars was spent to care for some 4,500 patients in hospitals; while the cost of supervising nearly 6,000 ambulatory heart patients in clinics was thought to have been approximately \$23,500, or less than one twenty-fifth of the hospital cost.

To provide wholly adequate dispensary organization for heart patients, including the services of physician, visiting nurse and social worker, it is estimated that \$20 per patient per year will be needed, if there are at least 200 patients on the active list. Thus a community of only 10,000 persons would probably provide that active list, if all men, women and children who require medical supervision because of heart lesions were to be found and enlisted in it. By such an investment of \$20 a year it is often possible to enable the head of a family to remain in the home, avoiding institutional care for her and for the children, returning the investment many times over by savings in relief or in hospital care which otherwise would be unavoidable.

MARION COUNTY, OREGON, CHOSEN FOR CHILD HEALTH DEMONSTRATION

Marion County, Oregon, of which Salem is the county seat, has been selected as the field of the far western demonstration, the fourth in the Commonwealth Fund Child Health Demonstration Program. The selection was made by the child health demonstration committee, only after careful weighing of applications from more than 30 cities and counties in the eleven Pacific coast and rocky mountain states which made application to the committee.



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BEHIND THE SCENES IN HOSPITAL PUBLICITY*

BY RALPH WELLES KEELER, COUNSELLOR IN PUBLICITY, BOARD OF HOSPITALS AND HOMES OF THE METHODIST EPISCOPAL CHURCH, NEW YORK, N. Y.

PUBLICITY is no longer a fad; nor is its use today confined to exploiting the bare-back rider of the circus or the actress robbed of her priceless jewels. Those who have a product or idea which they wish others to possess, either at a price or free, realize that others must know about it before they will desire to possess it. And business men, bankers, politicians and countless others use publicity as a most necessary means to that end.

That it brings results is self-evident. The antics of the odd-shaped bearers of Wrigley's chewing gum and the ceaseless labors of the Gold Dust Twins are no more familiar to the public than are the products which they so effectively advertise. Yet one product is used chiefly to emulate the faithful cud-chewing of the cow and the other to cleanse material that would otherwise be unsightly. And millions of dollars are spent in keeping a market alive for the output of both.

Yet some hospital executives neglect publicity altogether. They do not believe in it. It drags down to a commercial level a humanitarian institution. It is unethical, since members of the medical profession are a part of a hospital. They have all the patients they can care for and do not need publicity. The reasons given are legion.

Publicity Not Personal Exploitation

It would seem that such executives have never caught the significance of publicity for hospitals. They consider it a process of personal exploitation, a scheme for securing patients. They forget that these two viewpoints seldom enter the mind of the hospital superintendent who understands publicity and uses it wisely.

The hospital is a community institution, whether private or public, yet too often the community knows very little about the hospital and cares less. The result is lack of support when support is needed, and at times an indignant resentment toward the hospital and every one concerned with it. That there are many people who think patients are wilfully killed in hospitals is evidence supporting this statement.

But, you say, the hospital exists to serve the community. It ministers to every need that surgery and medicine

knows. It discovers the preventive measures that help to lessen the need of palliative methods. The community is its field of service, brought in by one to receive its ministry.

Then why hesitate to tell all this to the community? The community as a whole is ignorant both of the aims of the hospital and the self-sacrificing service given by doctors, nurses and others to realize these aims in personal ministration. What is everyday knowledge of the most commonplace character to those who carry on the work of a hospital, is a closed book to most people, re-

gardless of their status, educational, social, economic or religious. To them doctors are long-faced individuals who are guessing at what is the matter with you. Nurses are pert young women concerned chiefly with wearing their caps at the right angle and appearing dignified and offish.

Of course such conclusions are wrong. But many people do not know that they are wrong. And lack of publicity which would correct these erroneous impressions, is largely responsible for this condition.

If the purpose of hospital publicity is to inform people of the aims of the institution and the way these aims are realized, it is evident that wise publicity is the only method of removing miscon-

Correct Those Wrong Ideas

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. . . "The hospital exists for the community. . . . Then why hesitate to tell all this to the community? "

*Paper read before the twenty-sixth annual conference of the American Hospital Association, Buffalo, N. Y., October 6, 1924.

ceptions concerning the hospital. It even goes further. It not only removes the misconceptions—and they are far worse than many realize—but publicity also creates an intelligent interest in the hospital and its work. It gradually creates an increasing number who realize the important place the hospital holds in community life. And in this way the hospital comes to be as well known and to take its rightful place in community thinking and action as do other institutions which function in our daily life.

The Hospital Needs an Interpreter

However, simply to agree that publicity for the purpose stated is a useful thing does not in itself secure the results so greatly desired. There is no tree from which hospital publicity can be picked to serve as needed. It comes from the steady hard toil of those who have that rare combination of a knowledge of the hospital and its work, ability to discover the approach to minds of varying intelligence and prejudices, skill in the presentation of the ideas and facts to be disseminated and an imagination that visualizes for the other man those things which would win him to the hospital, if he were in possession of them.

They call such individuals hospital publicity men. And some executives put them in the same class with information clerks and bookkeepers. Their rightful place is on a par with members of the executive staff, for they are the interpreters of all who make the hospital, and their task is one of the most delicate in the institution.

The observance of National Hospital Day or Hospital Week illustrates the task of such an individual. It were fruitless to suggest that newspaper publicity be given the observance, unless someone can prepare the material. The newspapers are the greatest ally the hospital has. True, the reporter will snatch at the story of a patient escaping a nurse and falling out a window. That is news. But he also will be interested in unusual operations, additions to buildings and equipment, speeches by members of the staff, Christmas in the children's ward and countless other things that are of daily occurrence in a hospital. The day's routine is alive with news, but someone must discover it and interpret it.

Promptings of Hospital Publicity

National Hospital Day gives an excuse for trying out the local newspapers. It may take several weeks, though, to get the material ready, for everything planned furnishes material for this use. The sermons in the churches and the addresses in the Sunday schools make possible a big showing in Monday's papers. The at-

tendance of lodges, clubs, public school children and others at the open house offers picture possibilities. The baby party of babies born in the hospital opens up personal items of local interest. The public meetings makes possible pre-write-ups as well as a report of the meeting. The nurses' graduation gives a feature-story possibility. A luncheon for state and city officials brings reporters for special interviews. Fluoroscope and x-ray demonstrations, memorial tree planting and flag raising each make possible a newspaper story. And the man or woman who gets these stories in shape for the reporter's rewrite must have, to a greater or lesser degree, the qualifications specified.

The publicity task does not end with the newspaper, however. The spoken work is an important factor. Whether it be an address on the hospital delivered on National Hospital Day or at a club or lodge, it must have in it the message that will interpret the aims of the hospital and the methods used in attaining the aims. It must be prepared with unusual care so as to cover the work of the hospital and not merely be something the superintendent or doctor or nurse delivering it wishes to say. It must also be adapted to the particular audience to which it is delivered.

This last statement holds true also in publicity through letter writing. How few are the wise writers of letters! Mimeographed productions on personal matters are never effective. And the surly answering of a complaint or criticism usually makes more enemies. The opportunity to address a person by means of a personal letter should never be allowed to slip by, as each individual is a person who may be won. And criticism should be courted rather than thrown back in anger or resentment. For what hospital is perfect? And how many hospitals have for any number of years sought to clear up the misunderstandings of the public? And are there not still some hospitals whose staff members greet the public somewhat institutionalized in their approach?

The Trip Through the Hospital

The method of showing a visitor through the hospital is a case in point. Because the "guide" has been over the ground many times is no reason to assume an official air in informing a shy visitor that "this is the operating room" and "that is the morgue." Far better to explain how the operating room is prepared, how doctors and nurses get themselves ready for an operation, how an anesthetic is given and the care taken in an operation. Far better to omit the morgue and show the storeroom with a story of the pounds

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of sugar used a year and the tons of soap bought for the laundry. But to do this means a thoughtful trip through the hospital and a well-prepared method of instructing the visitor.

Wrong Assumption About Annual Reports

When it comes to the annual report, the same general criticism may be made. There is an assumption that people who are to read the report already are familiar with the details of hospital management and routine. This is a false assumption, for the most commonplace incidents in a day's routine is part of a romance to those unfamiliar at first hand with the almost miraculous work every hospital is doing. There is also the assumption that the annual report will be read, if written in an uninteresting style and printed in an amateurish manner. Here, again, the assumption is wrong. The day's work presented in picturesque, concise and effective manner, printed in such style and taste and on quality of paper as good as is used to advertise such lowly products as baked beans or "The ham dat am," becomes gripping, because it is more than ham and beans. It deals with the saving of human life. Yet many annual reports break all literary style. They are heavy and dull. Too often they serve merely as a printed file for the year's work.

Why Leaflets Fail to Bring Results

Hospital leaflet literature too often fails to get results because it is so far below the level of leaflets used to sell oil stock or patent sink scrapers. Yet there is no field of human activity that offers more interesting and thrilling material than the wards, the operating room, the fluoroscope laboratory and even the laundry, of any hospital. Thousands saw what O. Henry saw, but it made no impression on them until he lifted what he saw out of its surroundings and made it throb and glow.

The hospital scrub woman sees nothing but a dumb show in the salutation, "Good morning nurse," "Good morning doctor." The hospital publicity man sees in it a phase of morale that is a part of the hour when doctor and nurse battle together to save human life. The truck driver who delivers a truck load of laundry soap thinks merely of so many boxes delivered and receipted. The hospital publicity man sees miles of sheets and towels and uniforms washed white and glistening in the drying sunshine. He sees the beds from which the sheets came and the patients who have rested on them as the road turned left from the valley of the shadow of death to the plains of the life abundant. The information clerk sees only nervous irritating people who want

to see this man or that woman. The hospital publicity man sees an anxious wife and the home that will be broken up, if the husband dies. He sees the worried father and knows what an emptiness there will be if his precious daughter slips away.

What the Publicity Man Visualizes

Behind the scenes of hospital publicity there is a man or woman who dreams and has visions. He is not bound by the limitations circumscribing everyone else connected with the hospital. He sits behind the scenes developing the impressions which he himself must make on those to whom his material will go. He develops pictures and dreams the language that will visualize them. He studies the type that will best carry the message. He sees the crowd of men and women or boys and girls who will receive the message and he modifies his presentation as he looks into their faces. He sees visions of dull facts walking forth so jauntily as to attract attention. Treasurer's reports assume the interest of the sporting page of a daily. He atmospheres the hospital's ministry in such a way that it stirs the heart and mind and creates genuine interest.

Publicity—a Man-Size Job

There is a desk in his room and a few books. But beyond the walls of his office he constantly sees the work of the hospital going on. He sees the multitudes outside who give no heed whatsoever to it all. And with toil of mind and heart and hand he seeks by every method of human approach to break down the hospital walls so that everyone may look in, and see and understand.

Publicity is not a fad. Hospital publicity is an integral part of the ministry to broken and diseased bodies. And it is a task to be intrusted only to those who prove themselves fit.





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PRECAUTIONS IN USE OF ETHYLENE AS A GAS ANESTHETIC

THE excellent results which are being obtained in the use of ethylene as a gas anesthetic undoubtedly augur an increasing use of it in our hospitals. While ethylene is an inflammable gas it is in reality no more dangerous than ether, if proper precautions are taken in handling and administering it. Hospital officials and the personnel of operating rooms should, therefore, acquaint themselves with the ordinary safeguards to be observed in using it.

Ethylene is inflammable and with air (or oxygen) it forms an explosive mixture in a concentration of 96 per cent of air and 4 per cent of ethylene. Extreme care should therefore be taken not to use it in the presence of an open flame, electric equipment which may generate a spark, an electric cautery or an electric heating device. The use of matches and smoking when this gas is being used should be absolutely prohibited. Some authorities state that there is danger of a static spark caused by the friction of the gas passing through rubber tubing. Metal tubing might be considered. However, anesthetists who have had the longest experience in the development and administration of ethylene feel that there is little or no danger from this source.

Ethylene, moreover, is a compressed gas and like other compressed gases should not be subjected to artificial heat. To prevent blowing of the safety devices which form part of the valve, the cylinders of gas should be kept away from steam pipes, radiators, and the direct rays of the sun, and stored in a place where there will be no danger of the expanded gas, in the event of a leakage, coming in contact with fire or a spark from any electric equipment.

In a word, all that is required in the safe handling of ethylene is that the same commonsense precautions be taken with it that would be exercised in the handling of any other inflammable anesthetic.

THE WORLD WAR VETERANS' ACT

WE should like to call the attention of our readers to a passage in the World War veterans' act passed by the last congress, which provides "that all hospital facilities under the control and jurisdiction of the Veterans' Bureau shall be available for every honorably discharged veteran of the Spanish American War, the Philippine Insurrection, the Boxer Rebellion, or the World War, suffering from neuropsychiatric or tuberculous ailments and diseases, paralysis agitans, encephalitis lethargica or amebic

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dysentery, or the loss of sight of both eyes, regardless whether such ailments or diseases are due to military service or otherwise, including traveling expenses, as granted to those receiving compensation and hospitalization under this act.

"The director of the bureau is further authorized, so far as he shall find that existing government facilities permit, to furnish hospitalization and necessary traveling expenses to veterans of any war, military occupation, or military expedition since 1897, not dishonorably discharged, without regard to the nature or origin of their disabilities: Provided, that preference to admission to any government hospital for hospitalization under the provisions of this subdivision shall be given to those veterans who are financially unable to pay for hospitalization, and their necessary traveling expenses."

In the two wars of any consequence in which the United States has been engaged since 1897, the date specified in this act, there were approximately 5,000,000 men enlisted. If, therefore, full advantage were taken of the provisions of this law, the sick and disabled of approximately four per cent of our population, making due allowances for those who died during and since these wars, could now avail themselves of hospital care and treatment in government hospitals in so far as these facilities permitted.

Undoubtedly this act has potentialities which are of direct interest to the medical profession and to hospital and dispensary groups. The degree of this interest, however, depends both upon the extent to which the provisions of the act are applied and the extent to which veterans of the World War and the Spanish American war avail themselves of the opportunity this act affords.

COMMUNITY RESPONSIBILITY IN PROVIDING NURSING SERVICE

DR. WINFORD SMITH, director of Johns Hopkins Hospital, speaking on "Training Schools and the Nursing Profession," stated that there are in this country enough nurses, trained and untrained, to meet the average needs. Their distribution, however, is not equitable and the problem presented by the poor and people of moderate means who are unable to pay for nursing service is not solved by an adequate number of nurses. Doctor Smith argues that the community itself must assume the burden of providing nursing service to those of its elements who are unable to pay for it out of their own resources.

Organized effort, in the form of hospital and

dispensary service, is taking care of the sick poor, furnishing them as good attention as the same community effort furnishes the well-to-do who can pay for it. Thus community energy must assert itself to provide nurses for the sick poor, commensurate with the medical skill it supplies. Doctor Smith's argument cannot be contradicted nor can the movement he approves be halted.

Nurses can not be expected to serve without compensation or at compensation that is beneath the standards that this profession demands.

The community supports its fire and police departments, its water works and many other utilities that are no longer questioned as essentials to its existence. The health of its people and their need for doctors and nurses are no less important than the preservation of property.

WHAT HOSPITALS MAY LEARN FROM THE CIRCUS

SO FAR as we can learn hospitals, large and small, seem to be doing very little to safeguard the health of their employees, much less to promote it. They appear to be so busy taking care of the patients within their walls that they cannot give a thought to their own employees. "He saved others, Himself He cannot save," finds appropriate application here.

It would interest us to know how large a part our 7000 hospitals have had in promoting the National Health Council's campaign for annual physical examinations, particularly with reference to their own employees. We fear the part has been rather small.

Years ago Ringling Brothers' Circus picked up some cases of smallpox, typhoid fever and diphtheria. They felt the heavy hand of the authorities. They felt the hand so heavily that they concluded it was good business to vaccinate against and ward off preventable diseases. Now all of their employees are vaccinated against smallpox and typhoid fever. They are "Schicked" and inoculated against diphtheria, and all have a Wassermann test.

If it is good business for the circus to vaccinate against preventable diseases, it surely ought to be good business for our hospitals to do this. We know of one instance where a hospital, because of its unvaccinated personnel, had an outbreak of smallpox; another in which one of the unvaccinated nurses contracted typhoid fever. Unfortunate, but uncalled-for, occurrences such as these may happen in your institution. Be wise—follow the example of the circus of today, and take care of the health of your employees.

OPEN THE DOORS TO VISITORS

RALPH WELLES KEELER contends that visitation is one of the elementary means of hospital publicity. His idea is worthy the attention of every hospital administrator.

As a rule, the general hospital is dependent upon the public it serves for its financial support. If it is a well-conducted institution and entitled to aid, it would receive its support with very much greater liberality, if its public were fully informed of its work and purposes.

We cannot discount the value of personal visitation in acquainting the general public with the merits of the hospital. One trouble with hospital administration has been its disposition to take it for granted that, because the hospital has high motives, the people are all thoroughly acquainted with it and what it is doing. Its management is very much disturbed, therefore, when it undertakes to raise a budget or to collect a fund for expansion, to find how much preliminary educational work must be done to acquaint the public with the facts. This should not be. Mr. Keeler's plan, to a large extent, would keep the soil prepared.

Mr. Keeler says that those who visit hospitals rapidly learn to understand their problems and the handicaps under which they operate. They see, on every hand, evidences of worth and sacrifice and of results. These cement their heart and soul to the institution.

The morbidly curious must be detected and tactfully excluded. The remainder of the community, however, is entitled to the information and the inspiration that only personal visits to the hospital will afford.

THE ART OF NURSING

DR. FRANKLIN H. MARTIN, in addressing the graduates of the school of nurses of the Springfield, Massachusetts General Hospital, used this expression: "the fundamentals of scientific medicine and the art of caring for the sick." We do not know how circumspect Dr. Martin intended to be in the choice of his words, but we think that he made a fine distinction and paid a flattering, but none the less deserved, compliment to nursing when he classed it among the arts.

We are prone to consider it a profession, somewhat in the rank with medicine itself. Our training schools for nurses are built and equipped with the idea that nursing is a professional service. The curriculum is arranged to produce a professional woman. And the graduate goes forth in the faith that she is of the professions. Incidentally she fixes her fees on the basis of pro-

fessional service.

But would it not be a valuable thing for the profession, if it could be impressed upon the pupil and the graduate that she is preparing to practice an art? Does not nursing call for the innate ability and talent, the genius, we might say, which are exacted by the arts? Must it not be regarded, honored and worshiped as the artist's soul regards, honors and worships that which appeals to his finer nature and that which must be mastered whether or not it produces remuneration?

"Art for art's sake" is an old expression. "Nursing for nursing's sake" should be equally honored in the practice. Training schools could, with benefit to the sick and suffering and to the ennoblement of nursing, instill in their pupils the thought that that which they are seeking to attain is not altogether a professional opportunity but also an accomplishment in the fine arts. Dr. Martin said something very thoughtful when he uttered these words: "the art of caring for the sick."

THE WRONG KIND OF PUBLICITY

FROM the western press comes the announcement that two well-known hospitals in the state of California recently refused to admit a child desperately ill from burns. The child later died in a county hospital at Martinez.

Details of why these hospitals closed their doors to this child are, of course, not stated in the press notices. Only the sensational report that these hospitals refused admission to a suffering child has been broadcast to the uninformed public.

Just at this time when a large number of hospitals throughout the country are making a conscientious effort to correct wrong impressions which exist concerning the alleged indifference of hospitals and are trying to inform the public of the hospital's service to the cause of suffering humanity, propaganda of this sort is most discouraging.

Whether or not the hospitals in question were justified in refusing entrance in this particular case is not the issue at stake. The regret is that these hospitals have permitted themselves to be misrepresented to people all over the country. They have not only created unfavorable impression and brought down condemnation on their own institutions but have, doubtless, lessened the confidence of many people in the humanitarianism of hospitals as a whole.

Mercy Hospital, Baltimore, Md., has recently issued its Golden Jubilee Book in commemoration of its fifty years of service.

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CHRISTMAS AT OTTAWA SANATORIUM, OTTAWA, ILL.

CHRISTMAS is the one day of the year when all of us want to be at home, no matter how materialistic and lacking in sentiment we may be. What a problem it is, then, to the hospital or sanatorium to bring its patients through this trying period when the home ties tug at the heart so tightly! Small wonder that many hospital executives have grown to dread the approach of the day with its attendant responsibilities of banishing the loneliness of patients.

Yet to the institution that will give a little study to the matter, Christmas can be made a season of great joy and happiness to its patients. It is worth while to make a special effort to get the home folks, some of them at least, to come to the institution that day. Perhaps you think they're going to do that anyway, and so they will, many of them, but countless others will act only on suggestion.

The Ottawa Tuberculosis Sanatorium, Ottawa, Ill., one of the oldest and largest private sanatoriums for the treatment of tuberculosis in the country, has been unusually successful in replacing the way-from-home Christmas with a day so packed with good times that the patients forget all about the fact that they are shut in and are perhaps thousands of miles from home.

Christmas day is made a big day at Ottawa. First on the program is the effort that is made to get some of the home folks to come to Ottawa for the day. So that the patient will not be overburdened—and it is necessary to guard against that, lest the cure become worse than the ailment—the number of guests is usually limited to two for each patient. The visitors are not only guests of the patient but of the sanatorium as well, and everything is done for their pleasure and comfort.

Patients Decorate Rooms

Several days before Christmas the big dining room and reception halls are decorated. If a patient's condition warrants and he is so inclined, he may help a little with this. Strings of evergreen are suspended from the chandeliers and wreaths of holly and Christmas bells are hung in the windows and about the rooms. At one end of the dining room on an elevated platform, a big Christmas tree is erected and loaded with electric lights, tinsels, and ornaments of all kinds. And hanging somewhere on the tree there is a gift from the sanatorium for each patient. Then, on the day before Christmas, every patient's room is decorated with holly and evergreens and on each bedside table is placed a miniature Christmas tree.

When the great day comes, except in special cases, all

rules are off for the day. Nevertheless, the physicians are constantly around, watching the festivities from the background, watching for any untoward signs in the case of any patient.

Christmas dinner is, of course, one of the big events of the day. The tables are arranged in banquet style and fairly groan with good things, turkey, cranberries, giblet gravy, plum pudding, and many other things which tempt the appetite. Every patient whose condition at all warrants it, is in the dining hall for this event. For those less fortunate, who must remain in their beds, spe-



Ottawa Sanatorium and grounds, Ottawa, Illinois, as it appears on a white Christmas.

cial thought is given. If the home folks are present, dinner is served to all of them in the patient's room. In some other cases, two or more patients, who live so far away that their relatives cannot be present, are permitted to have their dinners together by the simple expedient of rolling their beds into one of the rest rooms. The thought uppermost is to provide congenial companionship, if the patient is at all prepared to stand it.

Orchestra Plays During Dinner

For the Christmas dinner, H. V. Pettit, the superintendent, provides an orchestra, which serves to make the dinner a real event. During the afternoon, the usual rest hour is, of course, abandoned, so that when evening comes and the Christmas presents are distributed, the patients are usually ready and willing to go to bed. To the directors of the sanatorium, Christmas is probably one of the most trying days of the year, for to carry through the program with a thought for the happiness of every single individual, yet watch against the tell-tale signs of over-weariness, requires constant vigilance. Yet it is well worth while, and certainly to the patients of Ottawa Christmas is a happy and memorable day.

PHYSIOTHERAPY IN HOSPITALS*

BY CHARLES E. STEWART, M.D., ASSOCIATE MEDICAL DIRECTOR, BATTLE CREEK SANITARIUM, BATTLE CREEK, MICH.

PHYSIOTHERAPY is the utilization of the physical forces of nature in the treatment of disease. For discussion, it may be conveniently classified under four headings: electrotherapy, radiotherapy, hydrotherapy, and kinesitherapy. The splendid results obtained in army and navy hospitals during and since the World War by the use of physiotherapeutic measures have awakened a new interest in the subject, and the demand for physiotherapy appliances has therefore greatly increased.

In the installing of a physiotherapy department, the cooperation of the medical staff and the services of a trained physiotherapist are of primary and fundamental importance. At the present time there are a number of hospitals in this country having physiotherapy equipment but using it only to a very limited extent because there is no trained physiotherapist in charge. The most elaborate physiotherapy equipment without an intelligent operator is of no more value to a hospital than is a well equipped operating room without a surgeon.

How to Stamp Out Quacks

We venture to state that the general adoption by physicians of physical agents as therapeutic measures will do more to stamp out irregular practitioners than will any other one thing.

Hospital executives may, on account of expense, hesitate to recommend the purchase of such equipment; but, if the matter be studied carefully, it will be found that by the use of physiotherapy the time of hospitalization will be reduced so materially that a considerable economy will result. A moderate charge, which the patients will gladly pay, can be made in many instances.

As a matter of fact, the average patient takes more kindly to this form of treatment and has more faith in it than in any other, as evidenced by the ever increasing number of people consulting osteopaths, chiropractors and others, many of whom make unwarranted and unjust claims for some special form of physiotherapy.

The committee is of the opinion that it is a wise move for every modern hospital to organize a physiotherapy department. In recommending equipment for the various departments, the matter of expense has been kept in mind and moderately priced equipment has been recommended wherever it can be used without sacrificing efficiency.

Electrotherapy Equipment

In the treatment of pathologic conditions by means of electricity, the forms used are those by means of which we can obtain chemical, mechanical, or thermal effects to the best advantage.

Galvanic Current:

For chemical effects, the galvanic current is used. This is also known as the constant, the continuous, or the low tension current.

The appliance should be equipped with suitable rheostat, ammeter, and electrodes. It may be attached to the regular light circuit, or the current may be obtained from dry cells; the latter is the more reliable because there is less danger from sudden interruptions of voltage.

Faradic Current:

The faradic current is an induced current, produced by

passing the current from a lighting circuit or dry cells through an interrupter into a primary coil surrounded by a secondary coil. Formerly this was used extensively, but since the discovery and introduction of the sinusoidal current it has largely been discarded, its effects being chiefly mechanical.

Sinusoidal Current:

This current is used where the mechanical effect is desired. Care should be exercised to select an apparatus that will give the reversing, slow sinusoidal current which is free from polarity effects.

There are on the market slow sinusoidal outfits equipped with generators that furnish a ground-free current. This is desirable from the standpoint of economy, since the same outfit can also be used in connection with the administration of hydro-electric baths. The outfits are put up in portable form and can be moved with ease from one department to another. They are also convenient because the current is produced by a motor generator which can readily be connected with the lighting circuit. Where there is a suitable sinusoidal installation, there is no need of a faradic outfit.

High Frequency Current:

This current is alternating in character and of such high frequency that in passing through a resistance such as that which the body offers, the effect is the production of heat. Because of its highly penetrating powers this is an extremely valuable source of heat production, the intensity and the location of which can be easily controlled by means of suitable electrodes and the manipulation of the spark gap.

There are two high frequency currents in general use; the d'Arsonval, which is applied with two electrodes, and the Oudin, applied with one electrode.

There are available several good high-frequency outfits equipped with suitable electrodes and other accessories.

Static Current:

There is considerable skepticism among physicians as to the merits of the static current in the treatment of diseased conditions. This skepticism is not without foundation, for the extravagant claims frequently made for this current have not been borne out by practical experience. Nevertheless, the static current has a therapeutic value in certain forms of disorder and where it now forms part of the hospital equipment it should not be discarded.

If economy requires the curtailment of expense in selecting electrical equipment, we suggest that the static current apparatus be left out for the time being.

Wiring:

When installing electrical equipment, care must be taken to see that the circuits furnishing the current have sufficient carrying capacity to care for the total amperage used.

The galvanic, the faradic and the sinusoidal units can be operated from the regular lighting circuit. Each electric light cabinet requires about 20 amperes; and the high-frequency about 10 amperes; the quartz light about 8; and the arc light about 6.

In including in the term radiotherapy all forms of therapy in which light is used as a therapeutic agent, we realize that we are including more than is ordinarily meant; but we believe that it is possible to use the term more comprehensively than is generally done; hence this classification.

The simplest form of radiotherapy is the photophore

*Submitted as a section of the report of the committee on clinical and scientific equipment and supplies, before the twenty-sixth annual conference of the American Hospital Association, Buffalo, N. Y., October 6-10, 1924.

which consists of a suitable reflector equipped with one or more electric light bulbs, of a wattage varying according to the amount of heat desired. From this simple device was evolved the electric light cabinet which is so universally used and which should be a part of the equipment of every department of physiotherapy.

Every physician recognizes sunlight as of the highest therapeutic value. But as it frequently is not available, science has fortunately come to our assistance by giving us the quartz mercury vapor light, which gives even more satisfactory results than does the sun, and is available at all times and seasons. We would recommend one of these, fully equipped, as part of a standard physiotherapeutic equipment for every hospital.

A suitable x-ray equipment and a reasonable supply of radium should be available for every hospital. Where there is a deep therapy x-ray equipment, a supply of radium is not so necessary.

Hydrotherapy Installations too Meager

We believe that the hydrotherapy installations of most hospitals are too meager. This is no doubt due to the fact that a proper installation requires a fairly large amount of floor space and considerable equipment; also because it is difficult to obtain hydrotherapy technicians. In the main hydriatic treatments are not difficult of administration, but they do require care and precision in their application in order to get the best results.

In this connection we submit a floor plan for a compact hydrotherapeutic installation, which may serve as a guide.

The space allotted for this department should be located where good ventilation and plenty of sunshine are available. A good form of construction is terrazzo floors. Where water is used freely, there should be white tile partitions and walls. The remainder of the partitions can be made of much cheaper material, such as plaster board and glass.

We recommend the following equipment for this department:

Two electric light cabinets.

Two six-foot full baths equipped with Leonard valves. These can be used for continuous baths, ordinary full baths, and also for hydro-electric baths where a portable sinusoidal equipment is available.

Two sitz baths.

Two whirlpool baths, one for legs and one for arms.

Needle spray and shower.

Douche apparatus. To obtain the most satisfactory results this should be as simple as possible, preferably one capable of being attached to the wall, thereby conserving space. Such an appliance should be equipped with suitable thermometers and a valve which can be quickly operated so that sudden changes from hot to cold can be made. It is also convenient to arrange to have the shower and needle controls operated from the same equipment. The rectal douche, the fan douche, and the percussion douche can also be operated from the same source.

Steam Room Equipment

In the douche and spray room it is well to have live steam so that a vapor douche can also be installed. This entails very little expense, especially where the spray and douche room is adjacent to the Russian or steam room.

A fomentation tank, thirty by thirty by thirty inches, preferably made of copper and equipped with a good sized wringer, is a great convenience in heating fomentation

cloths and blankets for packs. The water is heated by introducing live steam into the bottom of the tank through a perforated pipe.

The Russian or steam room is equipped with a marble slab and air pillow. Live steam is introduced beneath the table through a perforated metal pipe and steam is turned on by means of a conveniently placed valve. This room, while not a necessity, is a convenience, and can be used to advantage in many cases, especially those where cutaneous elimination is desired. However, it can be entirely dispensed with where the electric light cabinet has been installed.

Both the electric light cabinet and the Russian bath are frequently used as a preparatory treatment preceding general cold applications or salt rubs.

The Russian, full bath, and the sitz bath rooms may also be used as places in which to give salt rubs.

The whirlpool baths are best made of monel metal and should be equipped with temperature and pressure gauges.

The department should also be supplied with at least half a dozen leg and an equal number of foot tubs. These may be made from cedar or cypress and bound with brass hoops. The leg tubs should have an opening in the bottom, with a suitable plug, for convenience in emptying.

Comfortable Treatment Tables Needed

The treatment rooms should be furnished with comfortable treatment tables, of convenient dimensions and should contain two or more drawers with locks, in which the attendant can keep some of his paraphernalia.

All dressing and treatment rooms should be furnished with stools of suitable height—eighteen inches.

The department should also be equipped with an accurate set of scales.

The hydrotherapy department should have a hot water system large enough to meet the demands and so arranged that the pressure and the flow will not be interfered with when two or more units are being used simultaneously. This can best be accomplished by installing an independent heater which can be operated with a steam pressure of from one to five pounds. The following diagram illustrates a heater and connections which have been found to meet the above requirements.

Kinesitherapy is the treatment of disease by movements or exercise.

The department should have facilities for giving both manual and mechanical exercise. The chief requisite for such a department is a well-trained operator.

The massage department should be equipped with suitable tables, preferably those with folding tops.

There are a great many different mechanical appliances constructed for the purpose of giving exercise, but most of these are expensive and really not necessary. A skilled operator and director can, in most instances, give the necessary exercises without the use of elaborate mechanical apparatus.

If mechanical appliances are desired, we would recommend a small hand vibrator operated by an electric motor; for more general application the oscillo manipulator, which can be readily adjusted for fine or coarse vibrations, to almost any portion of the body.

Where patients can be taken in groups, wands, Indian clubs and dumb bells are useful.

If the hospital is so located that an out-of-door gymnasium is available, games of various sorts are found beneficial for certain classes of patients. Quoits, hand-ball, volley ball, and swimming afford useful forms of exercise.

Occupational therapy is frequently found useful as an adjunct to the various forms of physiotherapy.

TRUDEAU'S INFLUENCE IN THE CAMPAIGN AGAINST TUBERCULOSIS

BY ELIZABETH COLE, NATIONAL TUBERCULOSIS ASSOCIATION, NEW YORK, N. Y.

"OVER the doors of the hospitals for consumptives twenty-five years ago might well have been written these words: 'All hope abandon ye that enter here!' While today, in the light of new knowledge, we may justly place at the entrance to the modern sanatorium the more hopeful inscription: 'Cure sometimes, relief often, comfort always.'"

These words were spoken by Edward Livingston Trudeau before his death nearly ten years ago and to him belongs much of the credit for the change. During his lifetime, tuberculosis came to be regarded as a curable instead of a hopeless disease. Open-air sanatorium treatment, begun in this country by Dr. Trudeau in the Adirondacks, was greatly responsible for this "light of new knowledge" that brought about the change.

Edward Livingston Trudeau was born in New York City on October 5, 1848. His boyhood was spent in France in pleasant, comfortable surroundings until after the Civil War in 1865 when he and his older brother returned to New York. Then something happened that changed his whole life. His brother, always delicate, developed tuberculosis. There were no trained nurses then, no knowledge of the need for disinfection and care of the germ-laden sputum. The doctor, even, cautioned against opening the windows and once a week would usually leave a new kind of cough medicine. For four months, until his death, Trudeau nursed his brother, sleeping often in the same bed with him and taking absolutely no precautions. "How strange that, after helping stifle my brother and infect myself through such teaching as was then in vogue, I should have lived to save my own life and that of many others by the simple expedient of an abundance of fresh air!" he says in his autobiography.

Trudeau did become infected by his beloved brother. In 1868 he decided impulsively to become a student in the College of Physicians and Surgeons. His father had been a doctor. His mother's father also was a French physician whose ancestors had been physicians for many generations so that, although the new life was difficult and it was hard to break away from his less serious-minded companions, he must have inherited a sincere love for the work. In June 1871, three months after he passed his examination for his M.D. degree, he married Miss Lottie Bearn.

Trudeau—A Victim of the Disease

Some swelling of the lymphatic glands on the side of his neck was the cause of his seeing a well-known English physician in Liverpool while they were on their honeymoon. He was told that the glands were an evidence of a run-down condition and a tendency to scrofula. He was advised to paint them with iodine, to eat plenty of bacon for breakfast and to take a tonic with iron in it! Neither Trudeau nor the doctor realized these glands really indicated tuberculosis. Later he had several attacks of fever but it was considered to be malaria and he took quinine for this. On the spur of the moment, however, when he had found his temperature to be 101° he dropped in one day on the late Dr. E. G. Janeway of New York, a skilled diagnostician. He found "the upper two-thirds of the left lung was in an active tuberculosis process."

In his autobiography Trudeau says: "I stood on Dr. Janeway's stoop, I felt stunned. It seemed to me the

world had suddenly grown dark. The sun was shining, it is true, and the street was filled with the rush and noise of traffic, but to me the world had lost every vestige of brightness. I had consumption—that most fatal of diseases! Had I not seen it in all its horrors in my brother's case? It meant death and I had never thought of death before! Was I ready to die? How could I tell my wife, whom I had just left in unconscious happiness with the little baby in our new home? And my rose-colored dreams of achievement and professional success in New York! They were all shattered now, and in their place only exile and the inevitable end remained!"

And so they went to the Adirondacks and began there the life of hardship in the forests around Saranac Lake. In a wilderness then, with a forty-two mile drive from Ausable Falls to Paul Smith's primitive though comfortable sporting resort, Trudeau began his "cure" in the clean air.

This step on the part of the great pioneer doctor probably furthered the cause of tuberculosis more than any other step taken by an American. No greater departure from former treatment of the disease could possibly have been made. Instead of going to a warm climate and remaining indoors with closed windows and no sunshine, Dr. Trudeau braved the coldest, snowiest winters. His many medical friends were open-mouthed with astonishment at his daring and when it was found that he had withstood the Adirondack winter they began to admit there must be something of value in the treatment.

How the Sanatorium Started

The treatment was costly, however. Trudeau had no money with which to finance such a hazardous proposition and it was necessary to turn to his friends for financial help. Little by little he convinced wealthy persons of the benefits that might be brought to sufferers who lived in the city. He begged from friends, from strangers, from everyone who he felt could well afford to help increase his sanatorium fund. At length he started with one little cottage, the "Little Red," and two factory girls from New York were his first patients.

Working at first in makeshift quarters for a laboratory, Dr. Trudeau became in this country the pioneer of the treatment for tuberculosis which is used the world over today. Later he had the first research laboratory in America designed especially for the study of the tubercle bacilli then causing one-death in seven of the human race.

Trudeau, himself, was never wholly cured. He often endured intense suffering and many times his life was despaired of, but the clean breezes of those mountains and his "beloved pines" rallied him until 1915.

Trudeau Sanatorium, started forty years ago, in 1885, is a beautiful memorial to him. Next year will be celebrated there the fortieth anniversary of the beginning of this new treatment for tuberculosis. During these years many other sanatoriums have been started throughout the country and the work of preventing and curing tuberculosis has been greatly expanded. Trudeau's contribution to the world through tuberculosis study and through the rest and open air treatment has meant such a great saving of lives that wherever one is restored to

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health by his treatment the inspiration of Trudeau lives on. No greater tribute can be paid to the man than this thought.

Today in the United States there are available nearly 70,000 beds for the care of the tuberculous and it has been estimated that not less than 800,000 persons have passed through these sanatoriums in the past decade. Of these, close to 600,000 are still alive and this fact means that 6,000 less deaths have occurred than would have, had sanatorium beds not been available. Some of these are private and many of them have been made possible by Christmas seals that support the work of the anti-tuber-

culosis associations.

Trudeau was elected the first president of the National Tuberculosis Association in 1904. Its work, begun and influenced by Dr. Trudeau, is supported by the annual sale of tuberculosis Christmas seals. His spirit, ten years after his death, is keenly felt and is today an inspiration to continue the work to prevent tuberculosis and diminish the yearly death toll.

Those who help in the seventeenth annual Christmas seal sale are perpetuating the memory of one who helped to bring "cure sometimes, relief often and comfort always" to thousands of disheartened sick persons.

RECENT HOSPITAL DECISIONS

By DOROTHY KETCHAM, ANN ARBOR, MICH.

Work Not Within Sphere of Employment In 1922 the petitioner was superintendent of the Portland City Home and Hospital. He was elected to this position by the board of overseers of the poor and was subject to their jurisdiction and control. Their printed rules gave him charge of "all matters pertaining to the management of the city home." In this situation which came before the Supreme Judicial Court of Maine, June 17, 1924, it seems that two members of the board directed him to trim certain trees on the home grounds. He climbed a ladder for this purpose, from which he fell and broke his leg.

The award of compensation is challenged by the defendant largely on the ground "that he suffered his accidental injury while acting as an official of the city of Portland." The compensation act, it seems, in defining the term "employee" excepts "officials" of cities and other municipalities from the operation of the law. The court points out that the "superintendent is not independent. He is subordinate to the overseers. It does not appear that his tenure is certain, or that he is required to take an oath or give a bond . . . In no true sense is any portion of the sovereign power delegated to the superintendent of the poorhouse." The position was not created by statute nor established by municipal ordinance. "It is not necessary to determine whether he was bound to obey the orders given him by one or two overseers confirmed by the vote of the board. The commission did not err, as a matter of law, in holding that, independently of any specific order, the work which the petitioner was doing at the time of the accident was within the sphere of his employment. He appears to have had only two assistants, both inmates of the home, one feeble-minded and the other 'kind of crazy.' . . . Trimming trees on the home grounds was reasonably incidental to the petitioner's work." *Pennell v City of Portland*, 125 Atl. 143.

Cannot Sue State for Personal Injuries The West Virginia Supreme Court of Appeals, January 29, 1924, upheld a demurrer to a suit against a state hospital. This was an action to recover damages for the death of plaintiff's husband against the

Spencer State Hospital. It seems that the decedant was employed by the defendant in operating a motor tractor on the state farm. It is charged that the defendant permitted the tractor and certain parts thereof to become and to remain insecure and unsafe. The decedant, acting under the instruction of the defendant and without knowledge of the condition, it is alleged, undertook to operate the machine which became unmanageable. The decedant was thrown violently against the machine which the tractor

was pulling and was so severely injured that he died sometime later. It is said that the superintendent of the institution refused medical care after the injured man was taken to the hospital, and that the defendant had not elected to pay into the workmen's compensation fund. It is on this account that damages were claimed.

The defendant institution is a hospital for the mentally ill supported entirely by state funds. Its chief defense is that being a state institution, this action is one against the state, and for that reason cannot be maintained. The plaintiff contends that the defendant, being a corporation, can sue and be sued. The court points out that the management of the institution is within the hands of the board of control and that, consequently, it is not a corporation.

Any claim should have been addressed to the board but this board is merely the agent of the state "and in attempting to sue the agent, the real party defendant is the state. This cannot be under the constitution." This means then that there is no cause for action, and the declaration cannot be maintained under the laws of the state.

The fourth question raised is whether or not the defendant is bound by the workmen's compensation act which makes the state of West Virginia "an employee" subject to the provisions of the act. "However, that statute does not bind or compel employees to pay into the fund; it gives them the opportunity to elect to do so; if they do not so elect, they cannot interpose certain recognized defenses in actions for personal injuries. The state, however, needs no such defenses; it cannot be sued for damages. It is, therefore, not 'bound' by the act in the sense that it loses any legal rights if it does not pay into the compensation fund."

Since there was no cause for action, the demurrer was sustained. *Barber v. Spencer State Hospital*, 121 S. E. 497.

STEPHENS SUCCEEDS BACHMEYER AS A. H. A. TRUSTEE

Dr. George F. Stephens, superintendent, Winnipeg General Hospital, Winnipeg, Man., has been appointed trustee by the board of trustees of the American Hospital Association to fill the unexpired term of Dr. A. C. Bachmeyer, president-elect of the association.

A map showing the location of the hospitals in New York City has recently been issued by the United Hospital Fund of New York. It shows the municipal hospitals maintained by the city, and other institutions ministering to the sick.

PLANS PROGRESS FOR COLUMBIA-PRESBYTERIAN MEDICAL CENTER, NEW YORK, N. Y.

A TWENTY-ACRE site at Broadway and 165th St. overlooking the Hudson River, New York, N. Y., is to be the scene of development of a great medical center of the city embracing schools of medicine, dentistry and nursing, together with general and specialty hospitals and adequate scientific laboratories and research facilities.

Plans are now complete to make possible this entire development and the school of medicine, College of Physicians and Surgeons and the Presbyterian Hospital are to be built as the nucleus and parent institutions, with provision for the addition of a general out-patient clinic, a maternity hospital, a children's hospital, a psychiatric hospital, a neurological hospital, an eye hospital, an ear, nose and throat hospital, an orthopedic hospital, a urologic hospital, a dermatologic hospital and other institutions of teaching and research.

The plans for the new College of Physicians and Surgeons and Presbyterian Hospital buildings, to be erected at a cost of \$10,000,000 have been developed and have progressed into the stage of working drawings. The funds to build and operate the school portion of the group have been secured, the funds for operating the greatly expanded Presbyterian Hospital portion of the buildings are in hand, as well as the remaining four and a half million necessary to complete that portion of the project.

Under the joint administrative board representing Columbia University and the Presbyterian Hospital, these plans have been evolved for a group of buildings combining, as far as possible, features from the principal hospitals and teaching centers, and the ideas contributed by hospital administrators and educators generally throughout the country.

The medical school building and the hospital wards will be connected by means of an eleven-story axis which will be largely devoted to housing services common to both in-

stitutions. Duplication of effort as well as of construction and equipment, has been avoided by means of the intimate association of the professional groups and student bodies in the medical school with the staff and patients of the hospital. This has been accomplished without sacrificing any of the privacy or identity of the individual institutions.

The medical school building houses the departments of anatomy, physiology, pharmacology, bio-chemistry, bacteriology, and pathology, and also provides certain research, teaching and laboratory facilities for the departments of medicine and surgery and their specialties and houses the administrative departments.

The general hospital has fourteen floors above the ground. The first will be for administrative departments; the next ten, for ward floors; the next two, operating floors with mezzanine; and the top, gymnasium and recreation roof. On the north front of the hospital building is the section to be occupied by the College of Physicians and Surgeons. Future special hospitals may be erected on the east end of the hospital section. The estimated cost of the Presbyterian Hospital general and private-patient units is \$7,000,000.

The hospital portion provides ten teaching units totaling 640 beds with an adjoining private patient wing accommodating 125 patients. Each of the ten teaching units in the hospital is, as far as possible, self-contained with its own class-rooms, offices, laboratories, treatment rooms, reception rooms, sun parlors, dietary arrangements, as well as teaching, nursing and administrative staff, making possible the handling of the student body in small intimate groups.

Immediately above the teaching ward units is an entire floor given over to eight operating rooms, anesthesia and recovery rooms, manufactory of surgical dressings, sterilizing and consultant rooms for surgeons, and an operating amphitheater to be used in connection with large college gatherings. Above, a shallow mezzanine floor gives the student body access to all the operating rooms and amphitheatres without passing through the operating room floor.

When the new hospital is in full operation the present teaching facilities at the Presbyterian Hospital will be tripled but at first patients will be accommodated in five of the teaching units, with a capacity of 320 beds as compared to the 220 beds in the present Presbyterian plant. The remaining floors may be used temporarily for the accommodation of the Presbyterian Hospital School of Nursing, for housing or for the use of the specialty hospitals.



COLUMBIA - PRESBYTERIAN MEDICAL CENTER

South elevation of proposed medical center group showing the Presbyterian General Hospital section with the private patient pavilion which constitutes its west wing.

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HISTORY CHARTS FOR CASES IN UROLOGY AND SYPHILOLOGY*

By VICTOR COX PEDERSEN, A.M., M.D., F.A.C.S., NEW YORK, N. Y.

AFTER twenty-five years' experience in venereal disease and urological clinics of New York City during which it has been my constant endeavor to take and cause my assistants to take careful histories, several essential principles have forced themselves upon me. The following are the chief examples of those principles:

(1) The amount of detail for the physician must be reduced as far as possible, provided only the necessary facts are clearly and accurately obtained.

(2) The main headings must be in the most logical sequence not only for ease in securing data under them but also for future reference in the preparation of scientific studies and contributions. Examples of these headings are the administrative or civil facts as to each patient, the diagnosis, the previous history, the present history, the physical examination, the laboratory reports, and the social service notes. Diagnosis is put second in this series because as soon as the history is located in the files by the name of the patient, the next point which the physician must know is the diagnosis which must, therefore, be practically at the top of the sheet and very readily in view.

(3) Cross references are also essential so that in case additional notes are made later in the history bearing on the main headings the said cross references at once establish the connections.

During the past year, through the courtesy of the Committee on Dispensary Development, I have had access to all approved history charts from various hospitals in the United States to the number of, perhaps, 150. In this group of specimen histories, two main classes were noticed. Those in which only headings are given followed by blanks to be filled in according to the personal skill of the physician and those in which all the main data are fully supplied.

In my private practice for twenty-five years I have used the latter type with almost perfect satisfaction, but of course, all the work has been done by myself or a trained assistant, whereas in the clinics a record may be begun by one physician and completed by another, each having his own personal equation in such matters. It was, therefore, decided to use that form of history which

ST. MARK'S HOSPITAL DISPENSARY		SERVICE OF		D U - G U T NO		Page One
DEPARTMENT OF UROLOGY		G. U. THERAPY DIVISION		ADMITTED		
NAME	OCCUPATION	M F	AGE	S M W D		
ADDRESS	NATIVITY	IN U S	YRS	WHITE-BLACK		
REFERRED BY D. OF H. DR.	Gon., Nongon., Ant., Post., Ac., Subac., Chr., Uncomplicated, Complications—		SIGN		BOOK	PATIENT OTHERWISE
DIAGNOSIS URETHRITIS - KIDNEY BLADDER		URETER MISCELLANEOUS				
(On admission enter on pages 2-3-4 any facts for which the spaces of this page are insufficient. Use careful cross-references.)						
I. FAMILY AND GENERAL HISTORY—						
II. PREVIOUS VENEREAL HISTORY (As well as Urethritis enter Syphilis and any other V. D. All active cases receive proper Histories, Examinations and Treatments at once)						
III. PRESENT HISTORY						SOURCE OF INFECTION Public Adultery Congenital Clandestine Marital Otherwise PREVIOUS TREATMENT Physician Quack Self Institution Druggist
IV. EXAMINATION ON ADMISSION			V. EXAMINATION ON DISCHARGE			
DATE	Detail Dates Carefully	DATE	Detail Dates Carefully	DATE	Detail Dates Carefully	
	GENERAL APPEARANCE		CYSTOSCOPE		PREPUCE VULVA	
	PREPUCE VULVA		URINE BY CATHETER		GLANS CLITORIS	
	GLANS CLITORIS		RIGHT KIDNEY		MEATUS	
	MEATUS		URETER		INGUINAL GLANDS	
	INGUINAL GLANDS		URINE		TESTES OVARIES	
	TESTES OVARIES		PHTHALEIN		EPIDIDYMES	
	EPIDIDYMES		LEFT KIDNEY		URINE 1	
	URINE 1		URETER		2	
	2		URINE		PROSTATE UTERUS	
	PROSTATE UTERUS		PHTHALEIN		VERICLES TUBES	
	VERICLES TUBES		LEFT KIDNEY		URETHRA BOUGIE	
	URETHRA BOUGIE		URETER		ENDOSCOPE	
	ENDOSCOPE		URINE			
	BLADDER RESIDUAL URINE		PHTHALEIN			
			GON. COMP. FIX TEST			
			WASSERMAN			
VI. SMEAR CULTURE URETH. PROST. VES						
SMEAR CULTURE URETH. VULV. VAG. UT						

consisted of the headings only and left all else blank to be filled in by the writer of the record in accordance with the knowledge and mental aptitude of the patient.

Of the various history forms studied, that of the Brook-

*Read before the annual meeting of the American Urological Association, Atlantic City, N. J., June 3, 4, 5, 1924.

genitals are crossed out neatly by a horizontal line and vice versa. This arrangement makes one sheet cover both sexes and all ages. Reasonable space is given for the main data after use of the endoscope and cystoscope.

Those who desire to use rubber stamps showing diagrams of the urinary and sexual organs of both sexes may place these impressions on pages 2, 3, and 4, making suitable reference to them under the original subjects on page 1.

Under the heading, examination on discharge, exactly the same arrangement is followed. At the bottom of the page set off by the heavy horizontal line are the laboratory reports for smears and cultures from both sexes.

After the line applying to the opposite sex is crossed off, four lines remain for the laboratory record of the patient. They usually afford sufficient space for at least four examinations. Thereafter other examinations are entered on the continued history pages from date to date as part of the general management of the case.

One Record Form for Both Sexes

It will therefore be noted that this doubling of the anatomical parts for examination together with the inclusion of urethritides with kidney and other urological conditions under diagnosis makes it possible to use one form of record for venereal diseases and urological conditions in both sexes. In these days when printing is exceedingly expensive the wisdom of this economy becomes manifest.

Continued history as a separate subject occupies pages 2, 3, and 4 of the genito-urinary chart. Errors are avoided by repeating the name and serial number of the patient at the top of each page—a detail also wisely followed in the syphilitic history.

Between two heavy horizontal lines in fine print are stated orders for securing as much uniformity as possible. I have found that the average young assistant in a clinic as a beginner is very apt to deviate with considerable irregularity from procedures as simple as these. Hence, when studies are being made, it is very difficult to reduce the whole to an easily reviewed arrangement.

The balance of these pages on continued history are ruled in columns whose headings explain themselves with perhaps the exception of the column marked "time." Into it are to be written the duration in hours since the last urination. In other words, a male patient in particular, and a female patient less so, gives totally different first and second urines if the time since the last urination is long or short. Contrary to the usual customs "Remarks" are placed after the columns for the first and second urines on the ground that more commonly they refer to the urine specimens than to any other subject, from day to day.

Set off by a heavy horizontal line from the bottom of the page are algebraic symbols which are used to express changes in conditions by simply writing down the term for the condition, such as "pain," and by following it with the symbol describing it. So many physicians are already very familiar with the same principles applied to blood tests for syphilis, that it is equally easy

IV. FAMILY AND MARITAL RECORD

Include father, mother, brothers, sisters, wife, children, and any other blood relatives actually or probably infected. All such positive cases are to have separate Histories, Examinations and Treatments at once.

EXAMINATION						WASSERMANN			
RELATIONSHIP	NAME	AGE	OCCUPATION	DATE	RESULT	DATE	DONE BY	RESULT	DISPOSITION

V LABORATORY REPORTS									
a. Spirocheta: Smear									
Spirocheta: Dark Field									
b. Serum Examination					c. Spinal Fluid Examination				
DATE	DONE BY	RESULT	DATE	CELL COUNT	GLOBULIN	SUGAR	COLLOIDAL GOLD	WASSERMANN ALB. ANT.	REMARKS

SYMBOLS: Positive + Strongly Positive ++ Very Strongly Positive +++ Extreme ++++ Absent O Doubtful ? Weak + Distinctly Weak > Very Weak >> Unchanged = Variable OO Decreasing > Increasing < Stopped #

Page two of syphilis therapy history sheet.

to apply them to ordinary subjective symptoms and thus avoid a great deal of writing as well as to secure rather definite uniformity of expression.

Syphilis Therapy Division Chart

As to the syphilis therapy division chart, the following facts are to be noticed. There is no change in the design as concerns the administrative and diagnosis sections. In the previous history block are these subdivisions—(a) family, (b) marital, (c) personal histories. After each of these subdivisional titles fine print again warns the historian that he must proceed along definite lines. After the "personal" subdivisional heading, the same order is entertained as is found on the genito-urinary chart to the effect that all forms of venereal disease must be reasonably covered.

In the present history division there is no difference between the two charts. In the examination department all the organs of the body are entered in fine print remarks, so that the beginner will be guided to a logical system. Only the positive findings are to be stated, and if the whole examination is negative that word is written in full on the top line for the reason that later in the case another physical examination may require an entirely different description.

Social Service Notes on Treatment Sheet

Set off from the bottom of the sheet by heavy black lines, is the order that social service notes are to be entered on the treatment sheets from day to day. The reason for this is that the social service is really part of the management of the case. Therefore, in the writer's opinion, it is a mistake to enter it except as a day to day memorandum, otherwise the physician who may have made a request for a social service call has to look to some special part of the history for the report instead of the date on which he knows he gave the order for the call. The same rule is found in fine print at the top of pages 2, 3, and 4 of the genito-urinary therapy sheet.

On page 2, of the syphilis therapy history is placed division 4, "Family and Marital Record" with specific directions for including all near relatives. The titles in the spaces and at the heads of the columns explain themselves.

After a little experience it is found that a whole family may be charted with great accuracy for the social service work. Taken an example in the clinic of the writer. The father is syphilitic and admits it. It immediately became necessary to investigate all the family. Therefore on the father's sheet, under the family and marital record are entered the wife and all the children, who were

CONTINUED HISTORY. D. U.-S. T. DIVISION.						NAME						NO.					
<small>(On admission enter on this page any facts for which the spaces of page 1 are insufficient. Use careful cross-references. On admission each patient is to receive a circular of instruction with due explanation thereof. Urinalysis is to be done at least after each course of 6 As. or of 12 Hg. treatments, and Wassermann tests are to be done at least after each rest-period.)</small>																	
Date	As.	Hg.	Zones	KI	Remarks	Date	As.	Hg.	Zones	KI	Remarks	Date	As.	Hg.	Zones	KI	Remarks

SYMBOLS: Positive + Strongly Positive ++ Very Strongly Positive +++ Extreme ++++ Absent O Doubtful ? Weak =
 Diminutely Weak < Very Weak << Unchanged = Variable O Decreasing > Increasing < Stopped #

Page three of syphilis therapy history sheet.

at once sent for and examined. The wife was found to be syphilitic and also the eldest daughter. Each received immediately her own separate history chart for treatment. The younger children were found to be negative, hence they did not receive separate charts, but the posting of the names and conditions under this record for the three afflicted cases is a final source of following them sociologically.

Therefore, in the separate history of the mother is noted the family tree again. It would show the father and eldest daughter syphilitic and the younger children negative, and finally on the eldest daughter's chart are entered the facts that the mother and father are syphilitic but the younger children are negative.

This system of cross reference does not take as much time as it would appear, but in the end it saves the inexcusable calamity of overlooking unsuspected cases in families and of later seeing such patients reach the insane asylum with syphilis of the brain and spinal cord, or otherwise die of syphilis. Still on page 2 of this chart under heading five are the laboratory reports which speak for themselves. Everything of the laboratory investigations is grouped under this one head instead of as in the Brooklyn Hospital sheet putting part on page 1 and balance on page 2. Such concentration is most important as a guide to the treatment.

Set off from the bottom by a heavy horizontal line on pages 2, 3, and 4 of the history sheets are the algebraic signs which need no further comments than those already given for the genito-urinary history sheet.

The continued history section of the syphilis therapy sheet is placed on pages 3 and 4. Again set off by heavy black lines at the top of the sheet are stated in fine print definite orders of procedure for the same reason as is given under this subject in the genito-urinary therapy sheet. Of special importance are the details of analysis of the urine and of the blood from period to period of the treatment.

Details of Treatment Recorded

For the details of treatment the sheet is again ruled into columns each having a supplementary heading which needs little or no comment.

Inasmuch as salvarsan and its derivatives and analogues are in reality arsenical treatment it was deemed best to use the chemical symbol for arsenic at the top of this column. Therefore, a physician who chooses to give arsenous acid, Fowler's or Donovan's solution of arsenic, soamine and the like may put it all under this one column correlated with the salvarsan treatment. The column marked "Zones" may be used to state the part of the buttocks used for mercurial injections or the arm employed for intravenous injections. Each such entry will have the purpose of avoiding undue irritation of one part by unnecessary repetition of the treatment in it.

Based on the fact that these histories are fundamentally the same as the Brooklyn Hospital record which has stood the test of at least ten years of service, it is felt

that the essential additions and improvements are well worth notice and adoption by the profession.

Plates have been prepared for these sheets so that any hospital desirous of ordering them may do so by simply changing the name at the beginning of the administrative

section on page 1 of each history.

MODERN HOSPITAL YEAR BOOK TO BE DISTRIBUTED NEXT MONTH

The fifth edition of THE MODERN HOSPITAL Year Book, the reference book published annually by THE MODERN HOSPITAL Publishing Company as a part of its service to the hospital field, will be ready for distribution early next month.

In order to make this year's book of the most practical service to hospital administrators, early in the year questionnaires were sent out to the hospitals in America to ascertain at first hand what information is at present most desired by hospital executives. The results of this survey and an investigation along the line of the subjects suggested in the replies to the questionnaire find expression in the editorial matter of fifth edition of the Year Book.

So complete is the scope of the material presented that it ranges from the projecting of an anticipated hospital through the different steps of organization and construction, covering the laws of the states in which it is organized, the framing of by-laws, the process of raising money, the advisability of a budget system, scientific data on the equipment of the several departments, and answers a thousand questions for the hospital administrator without further reference to hospital experts.

Discussions of the equipment of the various departments of the hospital are arranged under six headings and under each heading will be found editorial matter written by masters of hospital administration in these several divisions.

This fifth edition also contains a classified directory in each section which gives the sources of supply for any piece of fixed or mobile equipment necessary to the operation of the several departments of the hospital or the institution in its entirety.

BEEKMAN STREET HOSPITAL ISSUES NOVEL CAMPAIGN CIRCULAR

In connection with its financial campaign for an additional \$100,000 to extend its facilities, the Beekman Street Hospital of New York has issued a unique statement arranged after the manner of statements customarily issued in connection with commercial bond issues.

The circular relates to Series A, non-mortgage increased service bonds and contains a summarization of a letter by Mr. Howard S. Cullman, president of the hospital. Mr. Cullman's entire letter deals with the property and business of the hospital, the services it renders, the work it did during the past year, its earnings and the purpose of the new bond issue, and concludes with a list of the officers, board of directors and medical staff.

The circular is a unique departure from the customary style of publicity used in financial campaigns and might well be adopted by other hospitals in raising their capital funds.

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SOCIAL SERVICE FOR CANCER PATIENTS

BY WILLIAM H. LIVINGSTON, M.D., ASSISTANT MEDICAL DIRECTOR, MONTEFIORE HOSPITAL FOR CHRONIC DISEASES, NEW YORK, N. Y.

MEDICAL social service to cancer patients involves a number of problems that are quite unique. The numerous problems that may arise in the course of social service with the sick, the results of poverty, ignorance, and domestic troubles exist in cancer cases as well as in all others.

One of the most important functions of cancer social service is teaching prevention. General propaganda makes less of an impression than a lesson based on concrete fact or experience. The social worker has an unusually effective method of approach to the family of the cancer patient to drive home the lesson she is seeking to impart. There are approximately 90,000 deaths from cancer in this country each year. Of all persons over forty years of age, one in thirteen men and one in eight women die of cancer.

It is almost exclusively a disease of adult life, for of the total number of deaths from cancer at all ages, 95 per cent occur after the age of thirty-five. Cancer affects practically every part of the body. The stomach is the organ frequently attacked. Thirty-five thousand deaths a year are from cancer of the stomach and liver. The female generative organs are the next most frequent place of attack. Peritoneum, intestines and rectum, rank third, the female breast, fourth. Cancer of the female breast causes about 8,500 deaths in this country each year.

Two Lines of Attack in Fighting Cancer

There are two lines of attack in fighting cancer that the social worker must try to emphasize. The first is to prevent its onset. The second is to treat the cancer early once it has started.

Since predisposition of tissue to cancer and chronic irritation appear to be two factors of some importance in the etiology of this disease, it is logical to assume that an individual living a simple hygienic life, avoiding all abuse and chronic irritation of any part of the body, will minimize the operation of these factors on his tissues. Another method of prevention is the proper attention to harmless growths. Cancer frequently begins in moles, pigmented warts, in all kinds of benign tumors and chronic ulcers. It is, therefore, advisable at times to remove harmless growths, and always to promote the healing of ulcers, lest they become cancerous.

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from a hundred. Early cases may be cured. Late cases are always fatal, for the cancer has already spread to so many vital organs that removal becomes impossible.

The dissemination of this knowledge to the public by social service workers will surely help to cut down that toll of 90,000 annual cancer deaths.

The early case of cancer may be operated upon for removal of the growth or may receive x-ray or radium therapy from the outset. In many instances post-operative cases are also advised to obtain x-ray and radium therapy. Social service workers direct such cases to the clinics where such therapy is obtainable.

Follow-up Work in Clinics

Although many patients attend the clinics according to directions both for purpose of treatment and subsequent observations, there are always a number who drop out. It then becomes necessary to write to the stragglers. Often writing brings no response, whereupon workers visit the patients at their homes in order to explain to them personally the importance of further attendance. Regular attendance by patients in the clinics is essential to successful treatment.

Social service workers have been of great assistance to the physicians studying the progress of cancer and the effects of our present methods of treatment. In addition to their efforts to have cases report to clinics, they visit the homes of those patients who have become bedridden to report on their condition. They also follow up those cases in whom the disease has been checked and who have been discharged from the hospital or clinic. Such cases are visited indefinitely and watched for possible recurrence of the malady. Patients showing recurrence are immediately referred for further treatment.

Statistics showing the progress of all cases treated are of utmost importance to determine the nature of the particular type of growth and value of the different methods of therapy. Such statistics can be obtained only by continuous and regular follow-up work. The efforts of the social service workers in having patients report to clinics for observation, and their personal visits to patients' homes to report on their conditions are two of their most important and interesting duties.

A very difficult problem of cancer social service is hospitalization. Once cancer is well established the disease runs a progressive course for the worse. Sooner or later these progressive cases require hospital care.

Workers know how difficult it is to get such cases into a hospital quickly. That speedy admission of many cancer cases to a hospital is imperative cannot be doubted. There may be the constant necessity for the relief of pain, or for controlling hemorrhage or for employing special feeding methods, or for dressing wounds, or for other measures of relief, yet the doors of most acute hospitals are closed to such patients. Because they may linger for a number of months or even years before death such patients must seek relief in special institutions. Very often, however, the afflicted individual must wait weeks or even months before vacancies occur in these hospitals.

Among other duties that workers have with sick patients is the care that they personally give or direct for those bedridden at home. Cancerous ulcers must be dressed, often daily. Either they do the dressing them-

CONTINUED HISTORY. D. U.-S. T. DIVISION.					NAME					NO.				
(On admission enter on this page any facts for which the spaces of page 1 are insufficient. Use careful cross-references. On admission each patient is to receive a circular of instruction with due explanation thereof. Urinalysis is to be done at least after each course of 6 As. or of 12 Hg. treatments, and Wassermann tests are to be done at least after each rest-period.)														
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SYMBOLS: Positive + Strongly Positive ++ Very Strongly Positive +++ Extreme ++++ Absent O Doubtful ? Weak +
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Page three of syphilis therapy history sheet.

at once sent for and examined. The wife was found to be syphilitic and also the eldest daughter. Each received immediately her own separate history chart for treatment. The younger children were found to be negative, hence they did not receive separate charts, but the posting of the names and conditions under this record for the three afflicted cases is a final source of following them sociologically.

Therefore, in the separate history of the mother is noted the family tree again. It would show the father and eldest daughter syphilitic and the younger children negative, and finally on the eldest daughter's chart are entered the facts that the mother and father are syphilitic but the younger children are negative.

This system of cross reference does not take as much time as it would appear, but in the end it saves the inexcusable calamity of overlooking unsuspected cases in families and of later seeing such patients reach the insane asylum with syphilis of the brain and spinal cord, or otherwise die of syphilis. Still on page 2 of this chart under heading five are the laboratory reports which speak for themselves. Everything of the laboratory investigations is grouped under this one head instead of as in the Brooklyn Hospital sheet putting part on page 1 and balance on page 2. Such concentration is most important as a guide to the treatment.

Set off from the bottom by a heavy horizontal line on pages 2, 3, and 4 of the history sheets are the algebraic signs which need no further comments than those already given for the genito-urinary history sheet.

The continued history section of the syphilis therapy sheet is placed on pages 3 and 4. Again set off by heavy black lines at the top of the sheet are stated in fine print definite orders of procedure for the same reason as is given under this subject in the genito-urinary therapy sheet. Of special importance are the details of analysis of the urine and of the blood from period to period of the treatment.

Details of Treatment Recorded

For the details of treatment the sheet is again ruled into columns each having a supplementary heading which needs little or no comment.

Inasmuch as salvarsan and its derivatives and analogues are in reality arsenical treatment it was deemed best to use the chemical symbol for arsenic at the top of this column. Therefore, a physician who chooses to give arsenous acid, Fowler's or Donovan's solution of arsenic, soamine and the like may put it all under this one column correlated with the salvarsan treatment. The column marked "Zones" may be used to state the part of the buttocks used for mercurial injections or the arm employed for intravenous injections. Each such entry will have the purpose of avoiding undue irritation of one part by unnecessary repetition of the treatment in it.

Based on the fact that these histories are fundamentally the same as the Brooklyn Hospital record which has stood the test of at least ten years of service, it is felt

that the essential additions and improvements are well worth notice and adoption by the profession.

Plates have been prepared for these sheets so that any hospital desirous of ordering them may do so by simply changing the name at the beginning of the administrative

section on page 1 of each history.

MODERN HOSPITAL YEAR BOOK TO BE DISTRIBUTED NEXT MONTH

The fifth edition of THE MODERN HOSPITAL Year Book, the reference book published annually by THE MODERN HOSPITAL Publishing Company as a part of its service to the hospital field, will be ready for distribution early next month.

In order to make this year's book of the most practical service to hospital administrators, early in the year questionnaires were sent out to the hospitals in America to ascertain at first hand what information is at present most desired by hospital executives. The results of this survey and an investigation along the line of the subjects suggested in the replies to the questionnaire find expression in the editorial matter of fifth edition of the Year Book.

So complete is the scope of the material presented that it ranges from the projecting of an anticipated hospital through the different steps of organization and construction, covering the laws of the states in which it is organized, the framing of by-laws, the process of raising money, the advisability of a budget system, scientific data on the equipment of the several departments, and answers a thousand questions for the hospital administrator without further reference to hospital experts.

Discussions of the equipment of the various departments of the hospital are arranged under six headings and under each heading will be found editorial matter written by masters of hospital administration in these several divisions.

This fifth edition also contains a classified directory in each section which gives the sources of supply for any piece of fixed or mobile equipment necessary to the operation of the several departments of the hospital or the institution in its entirety.

BEEKMAN STREET HOSPITAL ISSUES NOVEL CAMPAIGN CIRCULAR

In connection with its financial campaign for an additional \$100,000 to extend its facilities, the Beekman Street Hospital of New York has issued a unique statement arranged after the manner of statements customarily issued in connection with commercial bond issues.

The circular relates to Series A, non-mortgage increased service bonds and contains a summarization of a letter by Mr. Howard S. Cullman, president of the hospital. Mr. Cullman's entire letter deals with the property and business of the hospital, the services it renders, the work it did during the past year, its earnings and the purpose of the new bond issue, and concludes with a list of the officers, board of directors and medical staff.

The circular is a unique departure from the customary style of publicity used in financial campaigns and might well be adopted by other hospitals in raising their capital funds.

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Among other duties that workers have with sick patients is the care that they personally give or direct for those bedridden at home. Cancerous ulcers must be dressed, often daily. Either they do the dressing them-

selves or teach some member of the family the technique. A cancerous growth causing obstruction in the esophagus or stomach will necessitate special feeding methods. After a gastrostomy wound has been established, workers teach members of the family how to prepare the meal and how to feed such patients through the new opening.

At times workers find it difficult to get a member of the family to nurse the patient. This is due to the fact that some people have the notion that cancer is contagious. This fear of course is absolutely unfounded. In all the thousands of recorded operations for cancer there is no report of a case acquired by the surgeon or nurse. Nor is there evidence of any kind that cancer has ever been passed from one person to another, like smallpox or typhoid fever. Cruel neglect has been known to occur because of the fear of catching the disease. As cancer in the incurable stage calls for the most patient and devoted care, such groundless fear must positively be erased.

The important special functions that social service workers have with cancer patients make it evident that only competent trained nurses that are also experienced in routine social service should be employed for cancer work.

It must not be forgotten that the numerous social service problems that exist among any class of patients are also present in cancer cases. Obtaining food, clothing, light, heat, rent or other life necessities for poor patients and their dependents or adjusting domestic troubles are included in the social service duties with cancer patients.

STATE OF WISCONSIN GENERAL HOSPITAL, MADISON, WIS., OPENS TO PATIENTS

A special session of the Wisconsin state legislature in 1920 made provision for the establishment of the State of Wisconsin General Hospital in connection with the medical school of the University of Wisconsin, Madison. The hospital is now open to patients. It is located on the campus in close cooperation with the departments of physics, chemistry, biology, agriculture and public health and with the pre-clinical medical departments. The building is constructed on the unit plan, each wing having a unit on each floor above the first designed to care for from thirty to forty patients.

The hospital is adequately provided with laboratories and facilities for hydrotherapy, electrotherapy, and mechanotherapy and heliotherapy. The primary objects of the new hospital are to care for patients now lacking adequate care and to provide facilities for teaching and the advancement of medical knowledge.

In 1923 the Wisconsin legislature passed a law making it mandatory for public officials and physicians to report patients who seem to need the facilities provided by the hospital and make provisions for the transportation and care of such patients. The county judge to whom a patient has been recommended for hospital care, at joint state and county expense, shall appoint a physician of his county to examine the patient and report. The sum of \$5 is to be provided for this examination and report. Patients who have sufficient funds to pay the per diem cost of hospital care and overhead cost of special diagnostic and therapeutic facilities, but who cannot, in addition, afford the fees for the professional services of experts, may be sent directly to the hospital by the family physician and on discharge, be referred again with a report

as to the results of the diagnostic or therapeutic procedures requested to the family physician.

In such instances fees for the professional services of specialists may be of value, as those engaged in private practice are permitted to practice outside of the hospital at hours which will not interfere with hospital teaching, the care of patients, and research. Members of the staff on part time receive small salaries and do not have the privilege of the use of beds in the hospital for the care of private patients. The capacity of the hospital is more than 300 beds.

SMALL PERCENTAGE OF SANE FOUND IN HOSPITALS FOR THE MENTALLY ILL

In our July, 1924, issue we published a statement to the effect that thirty per cent, if not more, of the persons sent to institutions for the mentally ill are not insane. The statement which was made by a New York city official is misleading and incorrect, in the light of recent investigations.

An analysis made by Dr. James V. May, superintendent, Boston State Hospital, Boston, Mass., shows that, out of every thousand first admissions to forty-eight hospitals for mental diseases in sixteen different states, 4.69 per cent of these patients are discharged as not insane.

Out of 3,356 admissions to the public institutions for the mentally ill in Massachusetts during the year 1922 5.87 per cent were found to be without psychosis. Moreover, the report of the New York State Hospital Commission for 1923 shows that of the 41,302 patients in the state hospitals of New York on June 30, 1923, only 26 or .06 were reported as being without psychosis.

NURSING HERE AND THERE

The October, 1924, issue of the *World's Health* contains a letter by Dr. Sinding Larsen, on the training of nurses which refers to the paper on that same subject by Dr. H. L. Eason, English representative on the editorial board of THE MODERN HOSPITAL, which appeared in the August issue of the same magazine. These articles are of interest as sidelights upon the status of nursing in Sweden and in Great Britain and as a comparison of the aims and methods of those countries with those of nursing education in the United States.



A group of children at a Christmas party at a New York hospital.



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THE INFORMATION DESK

No satisfactory solution to a problem in your hospital is too trivial to pass on to other workers in the field. No question that perplexes you is too small to bring to the attention of those with greater experience in the field. This department is the readers' exchange, and its usefulness is dependent upon the measure in which its readers share their problems and their discoveries.

WHERE THE LAUNDRY IS NOT RESPONSIBLE FOR DESTRUCTION OF LINEN

There seem to be good grounds for suspicion that the surgical department is responsible for certain holes that appear in linen after the pieces have been laundered. Some of these holes are large and some are small; some are circular and some are irregular in shape. Unfortunately, the laundry can produce nothing but circumstantial evidence to prove that it is innocent.

It is well known that in the surgery there is often a lavish use of certain disinfectants that are corrosive to fabrics. The surgeon and his assistants have more important things to do than the careful avoidance of getting these solutions on the goods. While it may be that none of these solutions are strong enough to damage the fabric under ordinary conditions, some of them may be capable of concentrating through evaporation, and thus acquire enough strength to do harm to the fiber. We know that there are certain acids that have this property. However, the surgical department is apt to make a disclaimer, and say that all of the solutions are mild and place the whole blame on the laundry.

As a usual thing the laundry maintains that because no holes appear in the other goods, which it launders in precisely the same manner as that it launders the goods from the surgery, that the trouble comes from something that is done by the surgeon or his assistants.

In one case where this trouble was nearly driving the laundry manager to desperation it was suspected by him that the articles were being "tendered" in spots in the surgery, to such an extent that the weakened part would drop out in the laundering process, and leave a hole. Circumstantial evidence indicates that this is exactly what was happening; but through inability to get the cooperation of the surgical department in the matter of making tests, the laundry manager was not able to get a scientific and conclusive finding.

Inquiry brought out the fact that before the surgical linen was sent to the laundry it was for a long period of time subjected to a high temperature in a sterilizer. This, according to theory, concentrated some weak solution which had been put on the fabric (accidentally or otherwise) and this did the damage. As there never has been a visible indication of damage before the pieces were laundered, the laundry manager has nothing but this theory to use in making his defense.

STERILIZING RUBBER GLOVES

The following method for sterilizing rubber gloves is given by a writer in *The Quarterly Journal of Medicine*.

All gloves used in cases of carcinoma, streptococcus, or any other pus-producing organism, are boiled in clear water for fifteen minutes. They are then taken out and, together with the gloves used in clean operations, are washed in soap and water. Both kinds of gloves are then soaked for twelve hours in a 1:000 solution of bichloride. The nurse then dresses as for an abdominal operation and, with plenty of sterile towels, glove wrappers, talcum powder, sheets, etc., dries the gloves, covers them inside and out with the sterile wrappers and places them with the sterile supplies in the cupboard, where they are kept, ready for use.

Formerly the gloves were wrapped and sterilized in the autoclave. This, however, not only shortened their period of usefulness, but "killed" the rubber, so that the surgeons preferred the "wet" sterilized glove to one which had lost its elasticity in process of autoclave sterilization.

Commenting on the method given above, Dr. D. L. Richardson of Providence, R. I., says:

"The method mentioned should be efficient for the killing of ordinary disease germs with the possible exceptions of organisms which cause anthrax and tetanus. These two organisms are spore bearers and not easy to kill, and gloves contaminated by either should be sterilized on two different occasions, unless they are subjected to unusual high pressure steam at one time. I am a little skeptical, however, whether any money is to be saved by the method outlined. I think it is a fair statement that material is as cheap as labor. Considerable time is going to be occupied by a nurse in carrying out the technique necessary to keep the gloves sterilized while they are being put up after being taken from the bichloride solution. One very particular point worth mentioning is that not infrequently gloves are said to be injured by sterilization when, as a matter of fact, they were old when received at the hospital, or were in stock a long time."

An awning solution is now on the market that is absolutely fire and waterproof. It is colorless and adds to the life of the awning. The solution makes it impossible to start a fire by dropping a lighted cigar or match from a window.

An eyelet fastener may be used for marking rubber goods such as rubber sheets, hot water bottles, and other articles, by piercing the articles with eyelets to designate the number of floor or ward (one, two or three eyelets as necessary). These show clearly and cannot be altered if taken from one floor to another.—*The American Journal of Nursing*.

NURSING AND THE HOSPITAL

Conducted by CAROLYN E. GRAY, R.N.,

71 Willow Street.,
Brooklyn, N. Y.

WHAT THE TRAINING SCHOOL MAY DO FOR ITS NURSES AT CHRISTMAS TIME

By RUTH MILLER, KANSAS CITY GENERAL HOSPITAL TRAINING SCHOOL, KANSAS CITY, MO.

CHRISTMAS time in the nurses' training school. What a vivid, glowing memory these days will always be to the students in our hospital!

The Christmas spirit is in the atmosphere long before the holiday arrives. Classes are dismissed for several days preceding and the vacation continues until the first of the new year. This gives the girls ample time to shop and attend to the many little demands of the Christmas season. Here, as at home, packages are being smuggled in, the crisp rattling of the paper and tinsel ribbons tantalizing every hearer.

Parcels pile high. From home come many filled with dainties to enlarge our spreads. We always have a big feast Christmas week in the nurses' quarters and a happy and jovial group it is that gathers, discussing the pleasant events of the past months and looking forward to the coming year, each pledging greater effort to come a little nearer the goal which she has set, and to give to all with whom she comes in contact a part of this divine Christmas spirit which is not going to die like the old year midst the ringing of wild bells, but live on throughout the coming days and brighten and cheer the lives of those who suffer. It is with these thoughts in mind that we approach the holy day.

Each nurse has two days off duty arranged according to the individual's convenience. She may go home or, if the distance is too great, she remains and participates in the activities at the hospital.

Christmas at Kansas City General Hospital

At Kansas City General Hospital, the out-patient department donates its car to bring home the evergreen. It is placed in the classroom and all are invited to aid in decorating the tree which seems to radiate good cheer. We pop corn and string cranberries in the diet kitchen, and with the snow, ornaments and lights, it becomes a thing of beauty. Names are exchanged the previous week so that not one is forgotten. Presents not to exceed ten cents are placed about the base or tied on the branches of the tree. On Christmas Eve we have either a party or a dance and it is at this time that the tree comes into its own, for Santa himself is there to distribute the packages. As each name is called that person must walk to the center of the room to accept from "St. Nick" his gift and open it while all look on expectantly, for the gifts vary in size from the smallest parcel to large wooden

boxes containing a stick of candy or some small toy.

The evening passes all too quickly and long before we are ready midnight, the magic hour, is here and we are getting ready to settle ourselves for the "long winter's nap," and though we are past Moore's "Night Before Christmas" age, the well-known visions of sugar plums dance through some of our heads. On the morrow we are to have a dinner such as mother might have prepared. At each table are seated eight nurses with fresh, crisp uniforms and snowy white caps above beaming faces. It may be that my imagination is stimulated by the flickering of a sunbeam above their heads or it may be I sense the feeling of good fellowship and peace which abides here when the thought comes that these caps resemble a halo. It is a privilege to be among such women and no matter where we may be in the years to come no Christmas dinner can surpass the three we enjoy with our mutual friends in training.

We have four hours off duty on this day so that many are able to attend services or gather around the piano and sing their favorite anthems, all voices blending in the refrain of "Peace on Earth Good Will Toward Men."

These are but a few of the things done for the nurses. One cannot enumerate the many acts of kindness that are manifested and prove to us that our welfare and happiness lies close to someone's heart.

CHRISTMAS AT ST. LUKE'S HOSPITAL TRAINING SCHOOL

By VIOLET SMITH, Student Nurse, St. Luke's Hospital Kansas City, Mo.

At St. Luke's Hospital, Kansas City, the excitement starts at the November Student Council meeting when the committees are appointed to plan the Christmas Eve dinner, the tree and the Christmas festivities. From that time on how mysterious everything appears until Christmas Eve when all the students gather in the assembly hall on Christmas Eve and at 6:30 follow the superintendent into the dining room.

One long table had been arranged for the students, with three small ones at the head for the faculty. The Christmas effect is cleverly carried out with small trees brilliantly decorated, wreaths, nut baskets and favors.

The place cards are girls' heads on standards, representing in appearance the girl named and wearing the

(Continued on page 565)

NURSES DESCRIBE CHRISTMAS CELEBRATIONS IN HOSPITALS OF FAR-AWAY LANDS

CHRISTMAS IN HOSPITALS OF CHINA

By NINA D. GAGE, Dean, Hunan-Yale School of Nursing, Changsha, China.

CHRISTMAS in the hospitals of China is unlike that of many other countries because in China it is always the first Christmas celebration for many of the patients, for many of the natives have never heard of the Christ Child and are unacquainted with Christmas stories.

As in America, the hospital has its Christmas tree the center of interest. It is covered with paper chains in gay colors so that it is not easily recognized as the starlit candle-hung tree of our childhood.

Each ward does its own decorating. Arched doorways spring into being through intricate lacings of muslin. Large cardboards with cut paper inscriptions are hung over the doorways. These are usually three-sided with different inscriptions on every side. In some of the hospitals the patients make miniature scenic railways laid out through the snow with guards of cotton men a few inches high, with waterfalls, mountain peaks and wild animals, such as paper lions and dragons several feet long. The patients make all these decorations under the guidance of the nurses.



Bringing a Christmas message to the wards of the Hunan-Yale Hospital, Changsha, China.

On Christmas Morn Santa Claus makes the round of the wards distributing gifts and telling people about the first Christmas. He is usually assisted by the Sunday school children who make scrap books from clippings of postcards and other pictures which they paste on bright colored cloth. These picture books are a source of delight to the grown-up patients as well as the children.

After dinner the nurses usually stage a playlet written by themselves. The play always centers around some phase of the Christmas story and these plays are found to be a most effective way of bringing the story of Christmas to the patients.

At the Sleeper Davis Memorial Hospital, Peking, a banquet is given to the poor people.

CHRISTMAS IN A PHILIPPINE HOSPITAL

By IDA MAZ McILROY, Union Mission Hospital, Iloilo, P. I.

ONCE December has come, the patients and nurses of the Union Hospital of Iloilo, Philippine Islands, begin to prepare for the celebration of Christmas. Every one begins to think and to plan about some little gift to send to her family and friends. Some order Christmas cards, others have their photographs taken, while still others buy fans, handkerchiefs, and beads.

One week before Christmas the superintendent gives each nurse a slip of paper on which to write the list of things most desired for her Christmas gift. It is great fun to make out such a list and the nurses are rarely disappointed, as the articles desired, or similar ones, are usually received. This is not so surprising when one realizes that our American friends send us Christmas gifts as well as the hospital staff.

The day before Christmas finds everybody busy decorating the hall of the nurses' home with evergreens and coconut palms. The cheery red Christmas bells brighten the arches over every door, palm and window. The center light is gaily decorated with red and green paper ribbons which radiate to the walls. Christmas posters on the walls add their brightness to the general effect.

The hall is transformed into a bower of evergreen festooned with bits of red. The decorating of the famous Christmas tree is allotted to the care of Santa Claus and a selected few of his friends.

The service at the church is shared by the nurses, who recite Christmas readings and sing carols. Santa Claus presents all with little bags of sweets and nuts, which are greatly enjoyed. After this church service on Christmas Eve, friends, doctors with their families, instructors, and also the hospital attendants are received at the nurses' home which is attractively decorated for the occasion. The tinkling of bells announce the arrival of jolly, red-faced, smiling Santa Claus, who pulls a big basket full of packages and gifts behind him. After the gifts have been distributed, Santa Claus tells everyone to look around

the walls and under the palms for his or her stocking—a gay red one filled with candies, fruits, and nuts. These are gifts from the stores for the hospital. There is great joy and hilarity during the opening of the packages. By eleven-thirty the good night song is sung and wishes for a happy Christmas are exchanged.

In the sleeping hospital the night nurses tie a Christmas bell and hang a large stocking bulging with fruits, candy, and nuts at the foot of each bed. Towels, wash cloths, and soap are among the highly appreciated gifts from friends in the United

States. The wards have been as carefully decorated as the nurses' home, and flowers are on the tables. The convalescent patients, either on crutches or in wheel chairs, join the nurses in a morning service in the class room, where everybody sings in praise and remembrance of the birth of our Saviour. The Christmas dinner is a never-to-be forgotten banquet. All patients excepting those still on liquid diets, from the free wards to the private wards, have a bounteous feast.

Oh, what a happy time Christmas is for patients, nurses, and everyone in the hospital. All are eager to give happiness expressed in the form of gifts. Truly the Christmas spirit prevails to the present day with "joy, peace on earth, and good will toward men."

AN INTERNATIONAL CHRISTMAS IN THE AMERICAN HOSPITAL, CONSTANTINOPLE

By NEVENA SENDOVA, Graduate Nurse, American Hospital, Constantinople, Turkey.

One would think it a simple matter to celebrate Christmas Day,—but when is Christmas Day? The Americans celebrate December 25, according to the Gregorian calendar; the Greek Orthodox Church, including Bulgarians, Russians, as well as Greeks, celebrate their Christmas Day one week later. The Armenians celebrate still another week later, making the Christmas festivities in the hospital last fully three weeks. The American festivities, however, predominate at the American Hospital in Tcharches Capore, and Santa Claus arrives on schedule Christmas Eve, December 24.

Under the leadership of the American nurses, the natives decorate the hospital most attractively. A Christmas tree is placed in every ward, much to the interest of many patients who have never before seen one. The children are especially delighted, and the toys were such a wonderful treat that the children will not relinquish them but must take them to bed. The Turkish patients who had never heard of Christmas are all "eyes" to see what comes next. The American sailors, comprising fully half of the number of patients, are as joyous as the children over the festivities. The assistant superintendent becomes a most able Santa Claus when he distributes gifts from the American colony. Only the Americans exchange gifts on Christmas Day, the other nationalities,



A scene in the business office of the Yale in China Hospital, Changsha, showing the typical Christmas decorations.

of course, open their gifts on New Year's Day. The happy evening ends at midnight, when Greek, Armenian, Russian, and Bulgarian "angels" sing Christmas carols in English to the patients. Singing in English is the only way to avoid a "Tower of Babel" effect, as the English language is the only medium of communication between the different nationalities.

CHRISTMAS IN FINNISH HOSPITALS

By KYLLIKKA POKJALA, R.N., Finland.

In Finland there is an old proverb which says that Christmas Eve is the dearest part of Christmas. For centuries this most joyous holiday of all the year has kept faith with the proverb and the festivities of the Eve have been the greatest joy of all. Preparations are finished well in advance so that no confusion can mar the spirit and peace of the day.

To the young student nurses comes the special privilege of making the Christmas decorations. In accordance with the old custom, the nurses are seated at long typically Finnish tables covered with great white linen cloths and ablaze with lighted candles. There, for days ahead, the nurses make trimmings, such as snowflakes and apple blossoms to bring tidings of joy to all the hospital.

In every ward there is a Christmas tree decorated simply in white and silver with lighted candles. Every evening when the candles on the tree are lighted the nurses pass from ward to ward singing Christmas carols. At the same time, from the various associations, delegates enter bringing carnations to the patients. Santa Claus with his brownies and reindeer arrives from the north pole with his tributes and little gifts for the children. Santa expresses regret that he cannot bring more because there was so much snow at the pole that his sleigh upset.

Christmas is now in full swing and soon dinner is served. In Finland the Christmas dinner consists of luddle, fish, rice pudding, root beer made from malt, pork, tart-cake and numerous other delicacies. In the pudding is usually concealed what is known as the lucky almond. Good fortune is supposed to befall the one who finds this almond.

At last quiet falls over the wards. The night nurse ar-

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rives to blow out the candles. Out upon the northern sky majestic northern lights with their mysterious powers play as if in celebration of the coming of the Lord.

Dawn brings to the night nurse the most precious moment of the day. She is to light the candles in the ward on Christmas Morn at the same moment that thousands of other candles are lighted in the churches throughout the country and multitudes chant, "Glory to God in the highest and peace on earth, good will toward men."

A CHRISTMAS CELEBRATION IN ESTHONIA

By MARGARET A. MCGREGOR

The room of the Baltic Kopple Factory School where the American Red Cross holds its children's clinic was crowded to the door. The new Red Cross nurse and her interpreter faced the room from the side. What a lot of children there were! The girls who had attended her "little mother's class" were there all but the two who were sick. These two had been sent to the hospital where they were better off than in their own homes where there were many children to feed.

Three windows in different parts of the room were open and the room was none too warm. There was not enough fresh air in the room, but for a country sealed up in the fall, there was an unusual amount of exposure.

A child leaned forward and whispered to the interpreter who listened with attention.

"She says she does all her health chores," translated the interpreter, "with the exception of the one about the window. They are very poor and wood is most expensive. She will open the window in the spring, will that do?"

The nurse knew the price to be paid and also the wage earned.

"Tell her she should breathe deeply at all times when she is in the open air and we hope the spring will arrive early."

"Early," replied the interpreter, "why, the winter is only well started."

"I wonder if that is true," said the nurse, "why the snow arrived on October 1."

The curtain which concealed the tree was drawn aside. The children with rapt faces all drew long breaths. The tree was imbedded in a small half-barrel filled with sand gathered from the shores of the Baltic. From this level its succession of graceful branches lifted themselves to the spire where stood a tinsel angel poised ready for flight. With the exception of the angel on the very top, the tree had no other ornaments. The children drew audible breaths of appreciation. Mothers with babies in arms raised them to a sufficient height and turned their heads in that direction holding them so for a few minutes. The minister's voice was raised in a long, long prayer.

The nurse watched the children, every head remained

bowed, and while the prayer continued not a child moved. When the prayer had ended all turn again toward the tree.

The minister then read the text, and the sermon was addressed to the children. The service continued for four and one-half hours ending with the recitation and songs by the children. Could any talk of this length on any subject find the same response?

At the end of the service many advanced and very gently touched or patted the tree.

"Why do they do that?" whispered the nurse who could not speak the Esthonian language.

"The tree is a symbol of God's unchanging love and remembrance," answered the Esthonian interpreter.

"But don't they have a Santa Claus or presents?"

"They have the good jolly saint sometimes to talk to the children. When he comes an angel always accompanies him to guide him safely back again, but presents they cannot afford other than the love of God and the remembrance of the birth of His Son on His birthday."

CHRISTMAS IN A BULGARIAN HOSPITAL

By KRUSTANKA PACHEDJIEVA, president, Bulgarian Nurses' Association



Children grouped about the Christmas tree at the 1923 Christmas celebration in Esthonia.

It is the twenty-fourth of December and tomorrow is Christmas! Outside it is cold and windy. The earth is covered with its white thick mantle. Everybody is happy, everybody is in a hurry to buy a Christmas tree to bring to his home some Christmas cheer.

At the hospital, about two miles away from the city one group of nurses is making little baskets to hold the presents for the patients another group is folding colored paper for the tree, and

children are stringing the popcorn with which to decorate the Christmas tree. At eight o'clock the tree is in readiness and is placed where most of the patients can see it. One of the patients dressed in the national costume lights the candles on the tree. At the top of the tree is the figure of an angel, and on each side of the angel are white candles. These are lighted to represent "Peace." Then he lights the green and red candles, which represent the Bulgarian national colors. Around the tree are placed all sorts of Bulgarian products such as plums, apples, grapes, pears, nuts, wool, wheat, and corn. These are the gifts for which the people are thankful.

From behind the tree come twelve children dressed like angels. Each one of them represents one month of the year. They go around the tree three times which symbolizes God the Father, God the Son and God the Spirit. The odor of incense fills the hospital. Santa Claus appears dressed in a thick woolen costume with a big bag on his back, and a large stick in his hand, and distributes the presents. He calls the names and the little angels, assisted by the nurses, distribute the gifts.

HER FIRST CHRISTMAS IN THE SCHOOL FOR NURSES

BY MILDRED LAMPHERE, STUDENT NURSE, BETHANY METHODIST HOSPITAL, KANSAS CITY, KAN.

"OH WHY did I ever enter training? Just think! here I am, hating Christmas! Why I'd almost hate —". Such was the outburst of mingled disappointment and anger from Mary Riley, who addressed her consoler, Lela Shadd.

Here a soft palm silenced her. Lela's voice, winningly soft, was saying, "Did you ask to go home?"

"No!" was the furious answer, "I understand that it would crowd the work on a few girls, if all who lived near enough went home—and I'm not that selfish! But I saw the mail come in today, and I know I had a package—and now I can't find it. It's horrid enough to miss Christmas at home, but to miss your packages, that's too much!"

"So that's all," Lela's voice was suddenly full of relief. "Walk over home with me, I'll show you something and tell you more." Talking gaily, she caught Mary's arm and hustled her down the corridor of the home to the bulletin board. Pointing to a prominent notice, she commanded, "Read!"

Please Instruct all Relatives and Friends to Mark, Perishable, all Packages of Either Food or Clothing. All Others Will be Held Until Christmas Eve.—Miss Gardner, Superintendent.

An explosive, "Well!" proved that Mary had read. The two girls continued their way to their rooms, and Mary listened to Lela's explanation.

"You see, Miss Gardner wants us to have as much Christmas joy as possible. So since most of us say 'homelike' to mean 'ideal'—she tries to make our Christmas homelike! You know at home your gifts are all opened Christmas Eve—Well here they are too, cause Miss Gardner hides them until then! Gee! it's only two weeks away. I can hardly wait!"

The girls had now reached Lela's room, and as she left Mary, Lela smiled shyly and said, "You think you'll have a perfectly awful time here Christmas—that you'll be a martyr and smile despite your broken heart. But you're wrong! I'll wager a box of Martha Washington's you'll have one of the grandest times ever, if you let yourself."

Mary shook Lela's hand with her usual pep, and answered, "Lee, I'll take the wager, and almost hope you win!" With a doubting laugh she was gone.

The two weeks passed quickly. It was Christmas night! Christmas day had passed. Lela was sitting in her room writing home. She glanced about her pretty room, smiled happily as her eye caught the table laden with gifts, and candy—listened for a moment to the gay din from down the hall, then sighed contentedly. Her quiet was suddenly interrupted as a human whirlwind came in her door, caught her, and kissed her with gusto.

"There!" exclaimed Mary, "I'll gladly admit that you've won—but I guess you knew from past experience that you were safe."

"Have some candy; and sit down like a lady", scolded Lela teasingly.

"How'd you enjoy last night?"

"Wonderful," was Mary's prompt reply. "I thought your play was great and didn't the juniors have a fine pantomime? You can't imagine how surprised I was when the doctors gave us those pay envelopes. It's been heavenly all week without classes and to think of another whole week of vacation. Didn't you just love the carols this morning, and oh! the heavenly dinner," Mary con-

tinued breathlessly.

"I forgot to tell you how keen you look in your new uniform," Lela interrupted. "How'd you like it?"

"Like it?" Mary's voice was very soft, "Oh! Lee! I love it! You know this has been a wonderful Christmas. The holiness and sweetness of Christmas has come closer to me I believe than ever before in my selfish happiness at home. Oh, I've missed the folks—but they've missed me too, and maybe," here she smiled roguishly, "they'll be gladder to see hereafter; I was happy at noon; I was joyous this morning at chapel; but I believe my happiest moment was last night, when our class filed into the reception hall in our hospital's uniform! Truly I felt reborn—almost as though the great institution itself was welcoming me to its home and our profession!"

A deep silence held the room. Mary, a bit abashed by her fervor, was suddenly shy. Rising quietly, she slipped from the room, but turned at the door, with assumption of her usual gayety, to say, "You'll bet your Martha Washington's next pay day!" She was gone down the hall.

CHRISTMAS IN THE RESEARCH HOSPITAL

By WINIFRED ANDERSON, Student Nurse, Kansas City, Mo.

Some of the new nurses always think that Christmas wouldn't seem like Christmas in the hospital, but the Yuletide spirit pervades the Research Hospital and everyone is happy.

Boxes and packages from home are saved by the superintendent of nurses until Christmas Eve, when they are taken to the reception room and put around and upon the majestic Christmas tree.

About eight o'clock finds the Christmas party in full swing. A program is given by the nurses. Several of the nurses represent toys and have to be cranked up by one of the nurses dressed up as the doctor, before they can do their acting.

When the tree has been divested of its holiday bundles and everyone had explored the mysterious parcels, a huge "grab basket" is brought forth and everyone takes a grab. The little toys that the grab basket contained caused much amusement and are kept by the nurses as coveted treasures. Then there are boxes of candy for everyone given by one of the directors of the hospital.

A few of the doctors come down to join their festive good time. A rich warm glow fills every heart to overflowing. Soon it is time to go to bed.

Next morning before daylight the hospital is awakened by the voices of the students singing their Christmas carols from floor to floor of the nurses' home and hospital. The night nurses had their Christmas trees on the floors lit up to welcome the singers, which added much to the impressiveness of the occasion. The procession ended in the nurses' dining room where breakfast was eaten by candle light. The dining room is generously decorated with evergreens and other Christmas ornaments. These decorations are left until New Years also. This helped to keep the happy spirit with the nurses.

The thirty-fifth annual report of Wesley Memorial Hospital, Chicago, Ill., has recently been received. The report covers the period from January 1, 1923 to January 1, 1924 and contains over 150 pages which are elaborately illustrated.

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DIETETICS AND INSTITUTIONAL FOOD SERVICE

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A DIETITIAN'S CONTRIBUTION TO CHRISTMAS FESTIVITIES IN NEW ZEALAND HOSPITALS

By MARGARET BROWN, INGLEWOOD, NEW ZEALAND.

CHRISTMAS contrast is by no means dependent upon the stimuli of snow, ice and frosty air, experienced by those living in the northern part of the United States. A white Christmas is a source of delight to people of the United States who can hardly imagine the joys of picnicing out-of-doors upon Christmas Day, or the experience of actually eating Christmas dinner in the middle of summer.

Yes, in New Zealand, we who are so far away in the South do actually celebrate Christmas Day in the middle of the summer. Perhaps you who are accustomed to freezing weather and deep snows, think that we do not celebrate and enjoy our Christmas to the fullest extent, but we do. What Christmas cheer means to you, means to us too, especially if we are well and with our family and friends.

Nor is Christmas time lost sight of in hospitals. As everyone is away from home it becomes one of the big features to make all try to forget this fact by bringing as much happiness and cheer as possible to all.

After the much looked-for visit of Santa Claus nurses are seen scurrying about carrying trays laden with a delicious Christmas dinner prepared for each patient. There are all sorts of surprises even for the very sick and for those who are unable to partake of a full diet. There may be small baskets, pretty boxes containing almonds, hazel nuts, dates and muscatels, perhaps, and some may even contain assorted sweets. Some may be fortunate enough to obtain small stockings filled with all sorts of surprises. Sometimes menus are printed, perhaps on small cards or on serviettes. Christmas dinner is prepared with a thought for everyone. Full diets consist of soup or broth accompanied by New Zealand lamb (real lamb) and always goose, duck or turkey, which is served with appropriate sauce and stuffing. New potatoes and green

peas, which are most plentiful at this season, frequently find a place on the Christmas dinner menu. A simple dessert, such as fruit ship, Spanish cream, or fruit jelly, follows.

Happiness prevails in the nurses' home too. The dining rooms of both doctors and nurses are attractively decorated with shrubbery, pretty shades and a Christmas tree laden with gifts for all. They too, have a good dinner for the occasion, roast stuffed poultry with new potatoes and other vegetables. Plumb pudding always finds a place

on their menu. A well-made plum pudding with surprises hidden inside, such as threepence, sixpence, shillings and half crowns, and served with hard or brandy sauce cannot surpass the other desserts such as Spanish cream (a great favorite) and fruit salad, fruit jelly served with plenty of whipped cream. Our fruit salad differs somewhat from what is called fruit salad in the United States—we do not serve a portion on lettuce accompanied by sweet dressing; for ours the fruit is all cut in cubes or slices and minced, a favorite combination being orange, banana, passion fruit, pineapple,



Lazy daisy salad.

peach and pear—both lemon juice and sugar added to taste. This is served in small dessert plates or glasses with whipped cream as a finishing touch.

Some Christmas Surprises

Another great favorite is what we call "trifle." It is a combination of sponge cake, custard, fruit juice or sherry, flavored with macaroons and ratafias and capped with whipped cream and almond decorations. For after desserts there are assorted nuts—Jordan almonds, brazil and hazelnuts, dates, muscatels, English walnuts and chocolates. For the nurses, doctors and staff, there is a preference for tea at night; (tea commences about

6:30 p. m.) accompanied by lettuce salad, dessert and always mince pies. These are small individual pies made of short flaky pastry, filled with tasty fruit mince capped with a layer of pastry. They are generally served hot and can be accompanied by cream. Christmas cake is always on hand, and all taste as many kinds of Christmas cakes as possible, as each different piece of cake tasted means another lucky year. Some are made two to three months beforehand, the longer the better for tasting quality. These are all big fruit cakes, many iced with almond icing and coated with a sugar frosting of some description.

In the very near future we hope to have a first class dietary department in all of our hospitals in New Zealand. Perhaps that sounds too optimistic, because up to date we have not even one dietitian. However, in the course of a few short months, our pioneer dietitian, Miss Eleanor Wells, will commence her work in Dunedin Hospital, the largest hospital in the South Islands, and we are hoping that all will follow the lead set by Dunedin. There are signal opportunities for dietitians in our small country, and before long, all school dormitories and clinics, I am sure, will have dietitians at the head of their food departments. Returning again to hospitals, we will find



(Left) Grape juice charlotte russe; (right) apple snow jello.

that the dietitian and her assistant will play a great part in spreading Christmas cheer to all patients, nurses, doctors, and help. They will consider Christmas as a challenge, not only to their best efforts and great skill in preparing a holiday feast, but to their spirit in thoughtfulness, as well. The greatest joy of all hospital workers is found in doing for others, and Christmas offers a splendid opportunity for this.

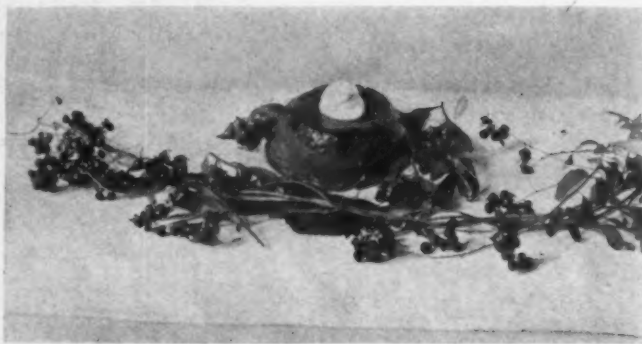
Some of the Favorite Christmas Menus

No Christmas is found complete without a dinner that savors somewhat of a feast. Here are a few suggested recipes which may add cheer to patients' menus; these are chosen with the thought that in many hospitals both funds and help are limited, and often, the simplest recipes which are made out of inexpensive materials and which require very little work are greatly welcomed.

LAZY DAISY SALAD

Oranges, 3; pimento, 2; cream cheese, 6 tablespoons; paprika, lettuce, French dressing. (This will make six servings.)

Peel oranges and separate into sections. Make cheese into balls allowing one tablespoon to each, and sprinkle with paprika. Cut pimentos into long narrow strips, place cheese ball in center of lettuce leaf on salad plate and arrange orange sections radiating out from it like the petals of a flower. Place a strip of pimento between the orange sections and pour dressing over all.



Chocolate plum pudding garnished with bitter sweet.

CHOCOLATE PLUM PUDDING

- | | | | |
|----------------|---------------------|---------------|--------------------|
| 2 | tablespoons gelatin | 1 | cup seeded raisins |
| 1 | cup cold water | $\frac{3}{4}$ | cup dates |
| 1 | pint milk | $\frac{1}{2}$ | cup nuts |
| 1 | cup sugar | $\frac{1}{2}$ | cup currants |
| $1\frac{1}{2}$ | squares chocolate | 3 | egg whites |
| $\frac{1}{2}$ | teaspoon vanilla | | salt |

Soak gelatin in cold water. Melt with part of sugar, add a little milk, making smooth paste. Heat milk in double boiler—when hot, add chocolate, sugar, salt and soaked gelatin. Remove from fire. When mixture thickens, add vanilla, fruit and nuts and fold in beaten egg whites. Turn into wet mold decorated with nuts and raisins. Chill, remove to serving dish and garnish with holly. Serve with whipped cream sweetened and flavored with vanilla or with currant jelly sauce.

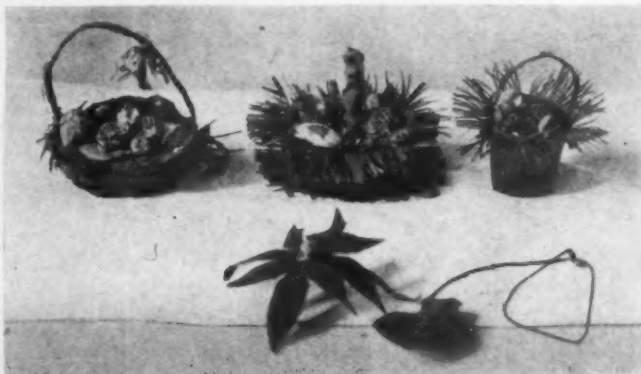
GRAPE JUICE CHARLOTTE RUSSE

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|---------------|------------------------|----------------|-------------------------|
| 1 | tablespoon gelatin | $1\frac{1}{2}$ | cups cream—beaten until |
| $\frac{1}{4}$ | cup cold water | | stiff |
| $\frac{1}{4}$ | cup boiling water | $\frac{1}{2}$ | cup sugar |
| 1 | cup grape juice | | lady fingers |
| 1 | tablespoon lemon juice | | |

Soak gelatin in cold water and dissolve in boiling water. Add grape juice, lemon juice and sugar. Stir until mixture begins to thicken, then fold in cream. Turn into mould with lady fingers. Remove from mould and garnish with whipped cream, sweetened and flavored with vanilla and decorated with candied violets.

APPLE SNOW JELLO

Dissolve a package of strawberry jello in a pint of boiling water. When partly cold, turn into sherbet glasses, filling three-quarters full. When firm pile apple snow on top. Make apple snow with grated apple and three



Christmas bonbons in baskets made of cardboard covered with tissue paper.

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tablespoons sugar folded into one-half pint of cool lemon jello, which has been whipped to the consistence of thick whipped cream.

CHRISTMAS CANDY

2 squares chocolate	$\frac{1}{2}$ cup raisins
1 tablespoon gelatin	$\frac{1}{2}$ cup candied cherries
2 cups sugar	$\frac{1}{4}$ cup chopped walnuts
1 cup sour cream	$\frac{1}{4}$ teaspoon cinnamon

Soak gelatin in two tablespoons water (cold). Melt chocolate in saucepan, add sugar and sour cream alternately, while stirring constantly. Bring to boiling point and let boil until mixture will form a soft ball in cold water. Add gelatin and heat until creamy. Add vanilla, nuts and raisins and turn into a buttered pan. Cool and cut in squares.

Above recipe makes a delicious Christmas confection.

ECONOMY OF MODERN METHODS IN THE STUDY AND TREATMENT OF DIABETES MELLITUS*

BY GEORGE BAEHR, M.D., MOUNT SINAI HOSPITAL, NEW YORK, N. Y.

BY MODERN methods of treating diabetes, I mean more specifically the modern methods of diet therapy.

For invaluable as insulin has proved itself to be in the treatment of severe diabetes and of diabetes during a febrile illness and after operations, diet control remains as yet our most important method of therapy.

In our new ambulatory metabolism clinic, where 95 per cent of all our diabetics are treated, it has thus far been found necessary to employ insulin in less than six per cent of the cases. Among diabetics who are hospitalized the percentage needing insulin is always much greater, for most diabetics occupying hospital beds are suffering from a complicating febrile illness or are in need of an operation. Yet even the majority of these patients need no insulin by the time they are again returned to the ambulatory clinic.

That the great majority of these patients do not need insulin is due, I believe, chiefly to the fact that their diet is carefully planned to meet the specific needs of the individual and is therefore adequate. The modern method of studying the patient, ascertaining his personal metabolic deficiencies and then planning the diet to meet these needs as fully as possible accomplishes, therefore the first great economy,—economy in the use of insulin.

Economy in the Use of Insulin

Economy in the employment of insulin has numerous accompanying advantages, which time does not permit me to discuss. Most of them are quite obvious. But one really great advantage is deserving of mention. The unnecessary employment of insulin greatly increases the difficulty of maintaining a constant normal blood sugar percentage. Even though we may not feel it necessary to maintain the blood sugar percentage at the low level insisted upon by Allen, few of us, I am sure, can view with equanimity the tremendous hourly fluctuations in blood sugar under insulin therapy. During the night

and especially in the early morning hours, after the insulin effect of the day has worn off, figures well above 200 mg. per 100 ccm. (two or three times the normal) are the rule rather than exception. An accurately balanced diet without insulin will maintain a more uniform daily blood sugar percentage and is therefore much to be preferred whenever the patient's need for food can be adequately met.

The modern method of treating diabetes is therefore seen to consist in much more than the mere employment of insulin. Essentially, it consists in the adoption of a

newer and more modern attitude toward the disease. Dietotherapy is no more the blind dietetic empiricism of the past, divorced from all knowledge or even thought of chemical physiology. By the employment of newer and more accurate methods we can now study the individual and ascertain his chemical deficiencies. From the knowledge of his caloric requirements while at rest, his respiratory quotient and his daily nitrogen excretion, methods which sound complicated but are actually very simple, we are often able to determine the actual burning mixtures within the individual, the amounts of carbohydrate, protein and

fat which he is actually consuming in twenty-four hours. And as a result of studying these burning mixtures in this fashion, one cannot but be influenced in his attitude toward all patients with diabetes. We learn to think of them in terms of metabolism, rather than of food.

After a few experiences we can never make the common mistake of imagining that when a patient is given little or no food he burns little or no fuel, or that because we supply him with a liberal allowance he burns all that we feed him. The human organism is in some respects quite unlike the engine to which it has been too often likened, for it consumes itself when the supply of fuel is inadequate.

Should Know Individual Metabolic Deficiency

The more we study the detailed metabolism of our diabetics, the more forcibly are we impressed with the

Dietary Treatment

MODERN dietotherapy has had revolutionary effects upon the treatment of diabetes. The careful planning of diets has reduced the use of insulin, particularly among ambulatory patients. Dr. Baehr tells us that out of all cases treated in the metabolism clinic at Mount Sinai Hospital but six per cent receive insulin.

A standardized method of prescribed diets has been worked out in accord with the modern viewpoints of dietitians enabling diabetics to enjoy a liberality of diet formerly inconceivable. The economic advantages of a liberal diet to the patient are apparent. The prescribed diets enable dietitians and trained workers to prepare detailed menus in a short time.

*Read before the dietetic section of the American Hospital Association, Buffalo, N. Y., October 7, 1924.

necessity of obtaining more accurate information concerning the degree of metabolic deficiency in every individual. And then the diet can be planned with the following three provisions; (1) that it meet the total caloric needs of the patient in a conservative fashion, (2) that the protein allowance be limited to the actual needs of the individual, (3) that the carbohydrate allowance be within the maximum burning ability of the patient and yet be as liberal as possible under the circumstances.

After decades of empiricism during which clinicians ignored the teachings of the old laboratory physiologists and thought chiefly in terms of food, we have in recent years come around most tardily to a realization that we must feed our patients only what they can comfortably burn. And on the other hand, we have also learned the futility of needlessly underfeeding them. As a result, the lot of diabetics these days is unquestionably a much happier one.

I do not mean to imply that undernutrition has been abandoned. It is still very useful, especially at the beginning of treatment in order to reduce the total metabolism and to empty the blood, liver, and muscles of their excess of sugar. Just as we now understand the reason for its great usefulness in the treatment of diabetes, we also now more thoroughly appreciate its limitations.

Greater Liberality of Diet

This newer viewpoint of feeding the patient those mixtures of carbohydrate, protein and fat which we have previously ascertained that he can burn has led therefore to a greater liberality in what we permanently allow him to live upon. The protein allowance presents the one exception. For the present day tendency is to limit the protein ration for diabetics to very near the physiologic minimum of Chittenden. But we have completely abandoned the ancient practice of limiting the carbohydrate allowance to the very minimum irrespective of the degree of severity of the disease, and are now only satisfied that we have accomplished our full duty to the patient when we have placed him on a permanent maintenance diet which contains the maximum amount of carbohydrate that he can tolerate with reasonable safety. Yet the modern departure of greatest economic value is, in my opinion, the more liberal allowance of fat. In this respect, we have abandoned the radical empiricism of Neunyn for the more rational physiologic viewpoint of Woodyatt and of Newburgh and Marsh. The liberal allowance of fat is only safe when the total food value of the diet is carefully restricted to somewhat less than the caloric need of the individual. Eventually, the patient accommodatingly lowers the rate of his metabolism down to the level at which we are feeding him, and then the diet becomes adequate.

Economy in Liberal Diet

The economic advantage to the patient of a diet which permits him to live comfortably and to retain his strength and his ability to work needs no discussion. We hope in the near future to demonstrate statistically the degree of economic restoration that has thereby been accomplished in a large group of patients previously treated with more rigid methods. The experiences are already impressive.

In all this work, the facilities for careful metabolic experiments on hospitalized patients are most valuable. The knowledge of the basal rate of metabolism, of the respiratory quotient (at important intervals under carefully controlled condition) and of the daily nitrogen excretion often give us an insight into the reasons for suc-

HOW TO APPROXIMATE THE AMOUNT OF VARIOUS FOODS IN THE TABLE

(For severe cases all foods should be weighed)

			COH	PROT	FAT
Bacon, (medium fat)	10 very thin slices - 100 gms.	one slice -	10.5	1.0	7.0
Bread, (white or rye)	1 slice 3/8 inch - 20 gms.	one slice -	10.5	2.0	2.0
Butter,	1/8 lb. - 2 oz. - 60 gms.			0.5	50.0
Cheese, cream	1/4 Neufchatel - 20 gms.			4.0	5.5
	cottage 1/8 lb. - 2 oz. - 60 gms.		2.5	12.0	0.5
	American 1/8 lb. - 2 oz. - 60 gms.			14.0	21.0
Cream,	1/2 cup - 100 gms.		4.5	2.5	20.0
	1/2 pint - 240 gms.		10.5	6.0	50.0
Cream, sour	1/2 pint - 240 gms.		2.0	6.0	50.0
Egg,				7.0	6.0
Fish, bass, bluefish, cod, haddock, (cooked) (weight to learn correct portion)	- 100 gms.			20.0	
Herring, pickled E. P. 1 herring	- 100 gms.			25.0	11.0
smoked, E. P. 1/2 herring	- 100 gms.			37.0	16.0
Meat, lean (wt. to learn correct portion)	- 100 gms.			20.0	15.0
Milk,	1 glass - 1/2 pint - 240 c. c.		12.0	8.0	10.0
Oatmeal (boiled)	1/2 cup scant - 100 gms. (2 tbs. farina)		11.5	3.0	0.5
Olive oil,	2 teaspoons - 10 gms.				10.0
Potato,	1 small 2" x 4" - 100 gms.		20.0	2.5	
Salmon, canned	1/2 cup well packed - 100 gms.			22.0	12.0
Sardines,	5 = 1 slice bread - one sardine		2.0	0.3	0.4
Sardines, canned	8 large or 15 small - 100 gms.			23.0	0.0
Shredded wheat biscuit, = 2 slices bread	one biscuit		23.0	3.0	
Unseeded biscuit,	2 = 1 slice bread 3/8" thick	one biscuit	5.0	0.5	0.5

VEGETABLES

(100 Gm. portion unless otherwise indicated)		(Calculated 1-3% - 3 gms. C., 3-5% - 5 gms. C., 10% - 10 gms. C.)	
1-3%	3-5%		
Asparagus, canned - 5 tips	Brussels sprouts - 3/4 cup		
Asparagus, fresh - 4 long stalks	Cabbage - 1 cup		
Beet greens (cooked) - 1/2 cup	Cauliflower - 3/4 cup		
Celery - 10 medium stalks	Egg plant - 1-1/2 cup		
Cucumber - 10 medium slices	Green pepper - 1 medium		
Endive - 10 stalks	Radishes - 5 small = 25 gms.		
Lettuce - 10 large leaves	String beans, canned - 1/2 cup		
(Average portion 5 leaves)	Tomato - 1 size of egg		
Mushroom - 4 medium sized	Watercress - 1 cup = 40 gms.		
Romaine - 10 leaves			
Rhubarb-cooked - 1/2 cup = 50 gms.	Beets - 3/4 cup		
Sauerkraut - 3/4 cup	Carrots - 3/4 cup		
Sorrel-cooked - 1/2 cup	Green peas-canned - 1/2 cup scant		
Spinach-cooked - 1/2 cup	Olive oil (25% fat) - 12		
15%	Onions - 6		
Artichokes - 1 medium	Oyster plant - 3/4 cup		
Green Peas-fresh - 1/2 cup	Pumpkin - 1/3 cup		
Lima Beans-canned - 1/3 cup	Squash - 1/2 cup		
Parsnips - 3/4 cup	String beans-fresh - 1/2 cup cooked		
	Turnips - 3/4 cup		

FRUIT, FRESH- 100 Gm. Portions

Orange - 10 sections or one small orange = 10 gms. G., (medium sized 150 gms. = 15 gms. C.)	
Substitutes: Grapefruit - 4 large sections or 1/2 very small (4" diam.)	
Muskmelon - 1 small dessert dishful cut in cubes	
Peach - 1 medium sized; Pineapple - 1 slice 3/4" thick	
Apple - 1 small sized = 15 gms. C., (medium sized 150 gms. = 22 gms. C.)	
Substitutes: Apricot - 2 small; Pear - 1 small	
Cherries - 25	
Huckleberries or blueberries - 3/4 cup	
Raspberries 1/2 cup red or 1/3 cup black	

Coffee, tea, broth, agar jelly and thrice cooked vegetables are permitted as additions to all diets without allowance for food value.

cess or failure which no amount of guess work can supply. Although they require more expert knowledge and assistance, the experience tends to inculcate the physiologic viewpoint in the clinician, the dietitian and all who care for the patient with diabetes. And, as we have been able to demonstrate to our own satisfaction, the more accurate knowledge which they give accomplishes a great economy in time, in days spent in the hospital, and therefore effects a saving in expense both for the hospital and for the patient. In cases of average severity and without complications, it is possible in this manner to complete a metabolic study in a week or ten days and then discharge the patient on a permanent maintenance diet, with full knowledge that the carbohydrate allowance is the maximum that he will tolerate with reasonable safety and that the total food value of the diet will adequately meet the patient's needs and permit him to resume his work with a maximum degree of efficiency.

Standardized Methods of Prescribed Diets

Thus far we have concerned ourselves only with the hospitalized patients and the economic advantages of more careful and scientific study. But the greater problem in the treatment of diabetes is to be found in the ambulatory clinic, the out-patient department. Here apply ten patients with diabetes to every one who finds admission to the hospital. And here the difficulties of applying accurate diet therapy are multiplied tenfold.

Vigorous educational propaganda, limitation of num-

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bers, inauguration of a strict appointment system for patients, organization of a social service staff reaching into the home,—all helped in eliminating some of the difficulties of our problem. But the most important help consisted in standardizing the method of prescribing diets in accordance with the modern viewpoints which have just been discussed. We thereby achieved a uniformity in procedure on the part of all assistants and workers which greatly simplified the instruction of patients, the checking up of diets, the keeping of records and the interpretation of results.

It is impossible in the time at my disposal to enter into a consideration of the details. An outline of the standardized plan may be found in the May 10 number of the *Journal of the American Medical Association*. The keystone of the plan consists in a series of consecutive test diets arranged in a manner resembling those of oslin. The protein and fat foods are practically constant values in all diets, the protein being 2/3 grams per kilogram of body weight and the quantity of fat being designed to secure a moderate degree of undernutrition. For individuals of different weights and caloric requirements, the quantities of all protein and fat foods are increased (or decreased) by simple multiples. In all the diets only the carbohydrates are the variables.

Small Group of Workers Handle Many Patients

We have therefore made use of the present day teachings of Woodyatt, Joslin, Newburgh and Marsh and Shaffer and have standardized the method of ordering diets in accordance with modern viewpoints. As a result, detailed menus can be planned by dietitians and other trained workers with great speed, which accurately meet the food values which the physicians have prescribed and which follow definite physiologic rules. A small group of workers is thereby enabled to handle a large group of ambulatory patients, plan their diets individually to meet their taste and appetite and instruct them with greater ease and accuracy. It has also made it possible to train doctors, nurses and volunteer assistants to a satisfactory degree of usefulness within a very short time.

Plan Used in Hospital Diet Kitchen

The plan is also in use in the hospital diet kitchen and saves the time of one dietitian who otherwise would be exclusively needed for the planning of numerous different menus for otherwise haphazardly ordered diets. It was originally devised about two years ago with the assistance of Miss Lulu G. Graves and Dr. H. Lande and has been of great help. It is merely reported upon briefly at this time, because it is an example of how the information obtained from recent physiologic observations may now be utilized for the standardization of treatment, with a resultant economy in time, labor and personnel.

DIABETIC TEST DIETS

For persons weighing 55 to 65 kg., (120 - 140 lbs.) P=2/3 gm. per kg. of weight. C begins with minimum amount on which the ketogenic ratio might be preserved in an individual of this weight and caloric requirement while at rest. The total calories are 20% to 25% below the average requirement for individuals of this weight while at rest.

Diet No.	C	P	F	Calories (Approx.)	CARBOHYDRATE										PROTEIN AND FAT						Diet No.
					1% - 3% Vegetables	3% - 5% Vegetables	10% Vegetables	15% Vegetables	Orange	Apple	Bread	Uneda	Potato	Oatmeal	Eggs	Meat - Fish	Cheese	Cream 20% Fat	Butter	Olive Oil	
1.	15	40	120	1300	200	100									2	70	20	150	60	10	1.
2.	20	40	120	1320	200	200									2	70	20	150	60	10	2.
3.	25	40	120	1340	200	200			50						2	70	20	150	60	10	3.
4.	30	40	120	1360	200	200			100						2	70	20	150	60	10	4.
5.	40	40	120	1400	200	200			100			2			2	70	20	150	60	10	5.
6.	50	40	115	1400	100	200	150		100			2			2	70	20	150	55	10	6.
7.	60	40	110	1400	100	200	150		100		20	2			2	70		150	55	10	7.
8.	75	40	110	1450	100	200	150		100	100	20	2			2	70		150	55	10	8.
9.	100	40	100	1460	100	100	150	100	100	100	20	2	100		2	70		100	55	10	9.
10.	125	40	90	1470	100	100	150	100	100	100	40	2	200		2	70		100	45	10	10.
11.	150	40	80	1480	100	100	150	100	200	100	60	3	200		1	70		100	45		11.
12.	200	40	60	1500	100	100	150	100	200	200	80	3	200	200	1	70		100	45		12.

Corrections for body weight (adults only)

35 - 40 kg. (75 - 90 lbs.)—25%	65 - 70 kg. (140 - 155 lbs.) + 10%
40 - 50 kg. (90 - 110 lbs.)—20%	70 - 80 kg. (155 - 175 lbs.) + 20%
50 - 55 kg. (110 - 120 lbs.)—10%	80 - 90 kg. (175 - 200 lbs.) + 25%

For permanent maintenance diet increase the amount of protein by 1/2 and the fat by 1/4.

To reduce expense or when vegetables are scarce—150 gms. of 10% or 100 gms. of 15% vegetable may be replaced by 30 gms. of bread (1 slice 1/2 inch thick.)

CHRISTMAS AT ST. LUKE'S HOSPITAL TRAINING SCHOOL

(Continued from page 556)

hospital cap. Below the head is written a question which the nurse was compelled to answer, much to her embarrassment and the delight and amusement of her friends.

After the questions are answered and a general spirit of gaiety prevailed, a four course dinner was served. During the last course, a vested boy's choir from one of the Episcopal churches sang Christmas carols to us from the halls outside. After dinner, we again assembled in the class room, where a beautiful tree is disclosed to us. Here, the mysteries of those long-hidden packages are solved and our hearts gladden with each remembrance from home. Then old Santa comes down the chimney in good old-fashioned style, carrying the self-same old pack. The pack contains a "joke" gift for each one, accompanied by a poem to be read aloud by the recipient.

At eleven o'clock a large number of the nurses attended a mid-night service at Grace and Holy Trinity Church, the most beautiful and impressive service of the year. Regardless of the late hour of retiring, all are up early Christmas morning to sing carols in the corridors of the hospital, thus imparting a bit of our spirit to the sick.

Death Takes Dr. A. R. Warner

It is with the greatest regret that we announce the death of Dr. A. R. Warner, executive secretary, American Hospital Association. He passed away at his home in Deerfield, Ill., at six o'clock, Thursday morning, November 27, after a prolonged illness.

Because the greater part of this issue of the magazine, including the editorial columns, is already printed it is impossible for us to publish a more extended notice in this number. This will be done in the January issue.

AMERICAN DIETETIC ASSOCIATION HOLDS SEVENTH ANNUAL MEETING

THE seventh annual meeting of the American Dietetic Association held in the New Ocean House at Swampscott, Mass., proved an unparalleled success. As one hospital dietitian from the west so aptly expressed it, "The whole convention was so good that I just couldn't afford to miss one paper or discussion."

Allied Problems of Dietitians and Nurses

Monday morning, at the close of the president's address, by Octavia Hall Smillie, Andalusia, Ala., Miss Carrie M. Hall, president, Massachusetts State Nurses' Association, welcomed the officers and members in behalf of that association and of the American Nurses' Association. She told us we were experiencing the difficulties of organization, of development, of standardization, of preparation, of struggle for professional recognition and many other things which they, as nurses, had experienced and are still experiencing. Departmental and professional cooperation are absolutely essential for progress and the best care of the patient in every hospital, so that Miss Hall's words representative of the thoughts of members of our sister profession brought us great hope.

"Year by year you have demonstrated your value to our institutions," she said, "not only through your scientific knowledge which plays so important a part in treatment of the sick, but through improvement in dietaries for those well persons who constitute the personnel of hospitals, until today the dietitian is as necessary a factor in hospital life as the nurse. . . . You have followed our lead again in finding it necessary to give your women a few months' practical hospital experience before putting your final seal of approbation on the results of their sound academic preparation.

"It might be possible also to further strengthen your hospital positions by more knowledge and understanding of the conditions of patients through that knowledge which is to be gained only at the bedside. . . . May I extend to you the congratulations of the nursing profession in having achieved so much in so short a time and express the hope that this series of meetings will witness greater development in your activities, and supply

inspiration to carry you forth on the next lap of your professional journey."

Medical Aspects of Dietetic Work

Dr. Ralph W. Jackson, vice-president, Massachusetts Medical Society, in the absence of President Bigelow, who was on official business for the society, conveyed greetings from the society.

He brought out that the medical end and hospital phases of dietetic work and the help that dietitians can give the medical profession in the treatment and prevention of diseases, of course, are of greatest interest to the members of the medical society and profession. "We must confess that we need the help," he said, "and this program indicates a broad catholicity and avoidance of fadism in your work, which means everything to your success."

He pointed out that the Massachusetts Medical Society has had about the longest continuous existence of any medical society in the United States, and that its four or five thousand members are fairly representative of the medical profession, and thoroughly appreciate the work the American Dietetic Association is doing to help the profession.

The need of coordinating past training with present accomplishments was brought out by Dr. Alice F. Blood, former president, American Home Economics Association, who reminded us of the standards and ground work derived from our home economics training.

Nutrition Problems Discussed

Every phase of nutrition was touched upon at the Symposium Luncheon. Some of the subjects discussed were:

1. The dormitory problems of a girls' college, by Edith S. Tufts, dean of residence, Wellesley College, Wellesley, Mass.
2. The art of supplying a homelike atmosphere and delicious meals for a large group of business women, by A. Mildred Barbor, Woman's City Club of Boston, Boston, Mass.
3. The problem of general administration and organization when coordinating hospital dietetics and housekeep-



THE ANNUAL PICTURE OF THE AMERICAN DIETETIC ASSOCIATION

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ing, by S. Margaret Gillam, director of dietetics and house-keeping, University of Michigan Hospital, Ann Arbor, Mich.

4. The report of an extension service in nutrition, made possible through the cooperation of the federal department of agriculture, the state colleges of agriculture and the counties, with its splendid results in rural districts, small towns and villages, by Flora M. Thurston, state nutrition specialist, Cornell University, Ithaca, N. Y.

5. The problems, the advantages and professional remuneration resulting from a position as consulting dietitian on private cases in New York City, by Mary Pascoe Huddleson, consulting dietitian, New York, N. Y.

6. These same questions arising from the field of consultant as to executive or administrative problems, by Fanny L. Sicher, consultant dietitian, New York, N. Y.

7. The therapeutic and administrative knowledge and executive ability necessary for the smooth and efficient functioning of a hospital dietary department, by Kate Daum, head of dietary department, Presbyterian Hospital, New York, N. Y.

8. The progress and results secured in a free diabetic clinic in the Cornell Clinic, by Julia Ingram Hazzard, Cornell Clinic and New York Hospital Clinic, New York, N. Y.

9. The establishment of a club house with living quarters, bed rooms and dining rooms, as an open center, where any woman student under thirty would be eligible for membership, proved the foundation for the far-famed project of the Boston Students' Union which now numbers 6,000 past members, by Katharine Osborne, Students' Union, Boston, Mass.

It is not necessary to go into the details of the Monday afternoon program, as these addresses will be published in full in the *American Dietetic Association Bulletin* or the numerous journals requesting them. Dr. M. T. MacEachern, director of hospital activities, American College of Surgeons, congratulated the association on the well-balanced program of the conference, the substance of which, he said, will do much to arouse more general interest in dietary, whether in the home, the school, the hospital, hotel, restaurant, cafeteria or elsewhere. He commended in particular the practical demonstrations afforded through the exposition and observation tours so splendidly arranged by the Boston committee.

The survey last year on the status of the hospital dietitian and that of this year on the organization and maintenance of the hospital dietary department have resulted in a tangible and worth while statement relative to a hospital dietitian's field and will be backed by the American Dietetic Association. This summary was drawn up by Effie I. Raitt, University of Washington, Seattle, Wash., and Maude Perry, Montreal General Hospital, Montreal, Que., organizers of their respective surveys, and marks a most valuable contribution to our section on administration.

The magic of music and evening gowns drove away all semblance of business at the seventh annual banquet, Monday evening.

The guests of honor were: Dean Annie Goodrich, School of Nursing, Yale University, New Haven, Conn.; Dr. M. T. MacEachern, Associate Director, American College of Surgeons, Chicago, Ill.; Dr. Haven Emerson, professor of public health administration, Columbia University, New York, N. Y.; Dr. Henry A. Christian, Peter Bent Brigham Hospital, Boston, Mass.; and Sarah Louise Arnold, formerly dean of Simmons College, Boston, Mass.

Study of Dietetics for Nurses Completed

Tuesday morning saw the completion of the three years' study on "Dietetics for Nurses" by the section on education. This much needed project was started by Miss Katharine A. Fisher, in connection with the nursing association and has been directed these past two years by Dr. Ruth Wheeler, University of Iowa, Iowa City, Ia. An outline of the results will be published very soon. This study should prove invaluable to both nurses and dietitians, as well as to hospital superintendents. It also marked the beginning of the study of the standardizing of training for dietitians which means a longer hospital apprenticeship and a recognition of the need for additional training as an assistant in a large hospital before assuming the responsibility of a department in a small hospital.

After luncheon, the section in dietotherapy supplied further notable contributions to our vision for the future of nutrition. Dr. Reginald Fitz, in presenting his paper on "Certain Tendencies of Modern Diets," data for which was assured by the cooperation of Miss Amalia Lautz, Peter Bent Brigham Hospital, Boston, Mass., gave us this goal—"Hospitals must set an example to their pa-



tients and personnel by serving model, normal diets which are inexpensive, easily prepared, palatable, and well-cooked, which contain sufficient bulk, calories and protein to cover the ordinary metabolic and digestive needs and which are so balanced in their food components as to be sound in theory and practical."

The report of "A Study of Normal and Corrective Diets" was given by Miss Florence H. Smith, St. Mary's Hospital, Rochester, Minn., chairman of this section, who expressed the hope that the association may be able to decide from these reports, the next step to be taken in continuing the investigation.

In the evening, Dr. Abraham Myerson, Boston, Mass., showed us the best dietary regime for the nervous patient, in his paper on that subject.

"While diet undoubtedly is of benefit to the neurasthenic patient," said Dr. Myerson, "it is much more important to remember that the neurasthenic patient often has gastrointestinal symptoms and difficulties of digestion which are not dietetic in origin, but which are emotional and psychological in nature.

As a result of these symptoms, the neurasthenic patient often forms obsessions relating to diet, and becomes the victim of fads of all kinds. Thus it is very common for patients of this class to become vegetarians, to live on a nut and cereal diet, to abstain from all foods except milk, to go on prolonged fasts, to flush themselves with immense quantities of water, to chew their food after the manner of a cow, and to adopt other peculiarities.

He said that it is probably true that one-half at least of the digestive disorders of adults which come to the attention of physicians is of this class. The most common thing in the world for the neurasthenic is to lose appetite, and in that loss of appetite resides a good deal of the digestive disturbances and the pre-occupation with food and diet which forms part of the trouble and complaint of such patients. It is necessary to recognize the emotional origin of these disturbances, and very often the best dietetic cure for the neurasthenic is to advise against dietetic regime of any kind."

The Wednesday morning and evening programs were filled with a wealth of inspiration to the profession. The social service section has completed a four-year study on foreign dietaries for Polish, Italian, Jewish and Colored people. Mrs. Gertrude Gates Mudge has rendered an in-

valuable service to our profession in directing this detailed and scientific research.

Stella Dean, Rochester Nurses' Association, Rochester, N. Y., vividly focused our attention on another opportunity in our profession when she presented the "Nutrition Program in a Nursing Association," while Dr. Hailes of the Vanderbilt Clinic, New York, N. Y., presented "A Study of Preventive Medicine" as supervised by Dr. Meek S. Reuben. Dr. Reuben expressed the need for this research thus: "For a number of years we have felt that in attacking the various problems of a social welfare nature a salient and important factor, which is conducive to ultimate and complete success, has been overlooked. At present the tendency is to solve the various medical social problems which confront physicians and social workers, as individual problems. It is seldom that any one family presents but one problem; responsibility is therefore divided, and divided responsibility usually means no responsibility."

Dr. Hugh Chaplin, Bellevue Hospital, New York, N. Y., presented a paper entitled "Average Diets for Children and the Individual Child."

Dr. Harvey P. Toole, Boston, Mass., showed in "Diet in Disease of the Skin," that chocolate or cocoa, often causes a severe rash for many children. He further discussed esthetics in relation to diet; variety, types, dangers, limitations; and the effects on various types of skins as well as the diet in acne, rosacea, eczema, psoriasis, urticaria and pruritus.

Dr. Joseph S. Hepburn presented a very scholarly paper "Use of Buffer Salts in Intestinal Diseases." Both Dr. Hepburn and Dr. Eddy made us realize the many problems that must be met and solved before results are secured in research.

Dr. Ruth Wheeler Elected President

The annual business meeting was held Wednesday afternoon when the following officers were elected: President, Dr. Ruth Wheeler, University of Iowa, Iowa City, Ia.; first vice-president, Miss Effie I. Raitt, University of Washington, Seattle, Wash.; second vice-president, Miss Florence H. Smith, St. Mary's Hospital, Rochester, Minn.; secretary, Miss Amalia Lautz, Peter Bent Brigham Hospital, Boston, Mass.; treasurer, Mrs. Agnes O'Dea, Fifth Avenue Hospital, New York, N. Y.



New officers of the American Dietetic Association. (Left) Miss Amalia Lautz, Peter Bent Brigham Hospital, Boston, Mass., secretary; (center) Dr. Ruth Wheeler, University of Iowa, Iowa City, Ia., president; (right) Mrs. Agnes O'Dea, Fifth Avenue Hospital, New York, N. Y., treasurer.



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FIRE PREVENTION DEPARTMENT

Conducted by W. M. Krieger, Engineer,
209 West Jackson Boulevard, Chicago, Ill.

PROTECTING THE HOSPITAL AGAINST THE X-RAY FILM PERIL

EACH year brings some advance in the arts and, in many cases, such advance brings with it an increase in fire hazard of American industries. For a number of years x-ray work has been an important feature in connection with diagnostic work of surgeons, doctors and dentists. This is becoming of greater importance daily and has reached such a stage that the accumulation of films resulting from this work has brought about a serious condition of hazard in many hospitals. A few serious fires have emphasized this hazard and have called attention to the need for careful storage and use of this film in hospitals.

Fire prevention workers have recently been startled upon discovering that many well-conducted hospitals store large quantities of x-ray film, in some cases as high as 500 pounds in a single hospital, under most hazardous conditions. Great quantities of film have been found stored in paper containers, in pasteboard boxes and placed upon wooden shelves in open cellars. Some of this film was stored within a few feet of heating apparatus. X-ray film has high explosive qualities, and it is a source of wonder that great catastrophes have not resulted.

Two Ways of Controlling Film Evil

There are two ways of controlling this evil. The first is the substitution of a slow burning film for the inflammable kind. This is not a plan to be carried out in a short time in its entirety, as there are many thousands of inflammable x-ray films holding clinical records that could not be destroyed without great damage to hospital work.

Fire department officials throughout the country have been much interested in the test made by one large concern at Rochester, N. Y., to produce a non-inflammable film, and were interested spectators at a demonstration held some time ago before representatives of the Underwriters' Laboratories and others. The success of these tests was such that the non-inflammable film is now on the market.

Nearly all of the film thus far produced has been on a nitro-cellulose base. This is the same material as is used in motion picture film and has the same inherent hazard, but as produced for commercial use, it is about twice as thick as motion picture films and is gelatin-coated on both sides.

Exposed Film Dangerous

The exposed film, or negative as it is called by the trade, does, however, constitute a hazard depending upon

the quantity stored and the manner of storing. It has the same susceptibility to quick ignition and spread that other nitro-cellulose products have, and it will decompose with evolution of dangerous gases at relatively low temperatures. To preserve the negatives it is the usual practice to keep them in envelopes of heavy manila paper or to place them again in the original cardboard shipping box. The insulation thus provided considerably retards the rate of combustion. If heated sufficiently to start decomposition, the usual dense fumes are given off, but the insulation provided by the heavy paper or cardboard prevents the building up of a high enough temperature to ignite these gases so that in a test conducted in an unsprinklered vault the fumes from the vent did not ignite as did those from motion-picture films in a similar vault. It is obvious, therefore, that safe storage can be obtained with film of this character, if relatively small quantities are kept in properly vented cabinets, or if the storage room is provided with suitable vents.

Cellulose Acetate—A Practical Film Base

It has been found practicable to use cellulose-acetate as a base of x-ray and photographic film, and the principal manufacturer of x-ray film in the United States has recently announced that a sufficient supply of acetate film will be available to meet all demands for x-ray work. This film has shown by test to involve no greater hazard than cardboard or paper of equal thickness. It is, therefore, unnecessary to require any special storage conditions in places using cellulose acetate film entirely. However, until the supply of negatives on the nitro-cellulose base has been discarded it will be necessary to provide suitable storage facilities in any hospital containing such film.

Guide Rules for Storing

Below are a number of requirements which should be followed out wherever x-ray and photographic films are stored:

(1) Two hundred and fifty (250) pounds of film or less, may be stored in approved fire resistive cabinets but not over fifty (50) pounds should be placed in any one cabinet.

(2) A cabinet should have a minimum volume of one (1) cubic foot for each twenty (20) pounds of film capacity and should in no case have a volume exceeding thirty (30) cubic feet. In general, cabinets should be of a design and so insulated as to stand at least a five

minute fire test. It is suggested that the following specifications will probably fulfill the above requirements. The exterior sides of the cabinet and doors should be composed of one-quarter inch asbestos board carried on a frame work of one and one-quarter by one and one-quarter by one-eighth inch angles, or may be made of 18 U. S. gauge metal, double walled, with one and one-half inch of air space. Doors to compartments shall be so arranged as to remain normally closed, shall be kept closed by catches at three points, and shall be sufficiently tight to prevent the entrance of flame from the outside.

(3) When over two hundred and fifty (250) pounds of film are stored it should be kept in a standard fire-proof film vault constructed as follows:

A film vault shall not exceed seven hundred and fifty (750) cubic feet in actual storage capacity, including aisles. The floor and walls of every such vault shall be of brick at least eight inches thick; or of reinforced concrete at least six inches thick. The roof shall be of reinforced concrete at least six inches thick. Walls, ceilings and floors of existing buildings, which conform to these requirements, may serve as wall, roof or floor of such vault provided the other protective barrier or barriers composing the vault are rigidly tied into them and that the interior vault space be limited in each case to seven hundred and fifty (750) cubic feet. A fire door shall be provided on each face of the wall to door openings leading into such vaults. Such doors shall be of approved type. The interior door shall be made to close automatically. The outer door shall be of the swinging type, shall close in a rabbitt, or otherwise be made tight to prevent the passage of flame around the edges. It shall be self-closing and so arranged as to close automatically in case of fire originating inside or outside of the vault at such times as it may be temporarily fastened open.

(4) Each film vault and each cabinet, when the cabinet contains more than 50 pounds of film, shall vent to the outside air with the vent having a minimum effective sectional area of seventy (70) square inches. For a standard vault of seven hundred and fifty (750) cubic feet the vent opening shall be fourteen hundred (1,400) square inches.

(5) A metal can having a self-closing spring hinged cover and approved by the Underwriters' Laboratories should be provided for all waste negatives and film scrap, and at no time should these be permitted to accumulate and lie around on tables, benches or floor.

(6) Stocks of unexposed films should be kept at a minimum. Only a very limited supply should be kept on hand at any one time.

(7) In rooms where films are filed or handled there should be no flames or any other than standard electrical fixtures. All open lamp bulbs should be protected from breakage by suitable guards. An approved hand fire extinguisher should be in each room where films are handled. Dark rooms and other doors should be arranged so as to make egress from such rooms easy.

(8) Film negatives should be filed as soon as possible in heavy manila envelopes, either singly or by case, and the filing of these so arranged that it is convenient, from time to time, to weed out useless negatives.

(9) Film illuminators shall be so designed that the diffusing glass is not hot to the touch and there shall be no unnecessary display of film negatives in lighted illuminators. Negatives set up for viewing shall be confined to those actually being inspected.

Surveys of Hospital Film Storage

The officials of one city recently made a thorough investigation and took steps to correct existing conditions.

The first step was to check the actual conditions in hospitals and this was done by a careful survey of each institution. In this survey fifty-three hospitals were inspected and it was found that a considerable amount of film was stored in nineteen of the larger institutions. In this survey no effort was made to investigate the numerous small, private hospitals of individual doctors.

The table gave the name of the hospital, its location, the quantity of film at time of inspection, precautions, if any; character of protection and remarks covering the conditions of storage. In the nineteen hospitals reported upon, it was noteworthy that only in one was there any precaution taken against fire exposure. In the one hospital where there was precaution it was found that 150 pounds of film was stored in two vaults, floors concrete, walls twelve inches thick, concrete arch ceiling and doors one-quarter inch sheet steel safe material. It was found, however, that even in this hospital, one of the best known in this country, the vault had no vents and the film was stored in pasteboard boxes on wooden shelves in the vault. In the same hospital there was also found twenty pounds of unexposed film which was kept in a heavy lead box outside the film vault.

Typical Examples Found in the Survey

As a guide as to what may be expected in surveying any large city, it is interesting to note the quantity of film stored in a few of the nineteen hospital buildings.

No. 1. Five pounds of film, unexposed, in the original container stored on a shelf in the x-ray room; thirty pounds unexposed, stored in a wooden cupboard in the hall; 150 pounds, exposed, stored in an open wood cupboard in individual envelopes with steam pipes passing within one foot of the film. This institution was of old style construction and contained a large number of patients at all times.

No. 2. One hundred and fifty pounds of exposed film was stored in individual envelopes on open wood shelves; steam radiators located three feet from these shelves; fifteen pounds unexposed, in their original pasteboard containers stored on open wooden shelf.

No. 3. One hundred pounds unexposed, stored in a wooden lead lined box. Four hundred pounds exposed stored in their individual envelopes; in a wooden cupboard on wooden shelves; four hundred pounds, exposed stored in pasteboard boxes on wooden shelves.

The film storage and conditions surrounding the other sixteen hospitals read very similarly to the three cases enumerated above.

The hazards from the storage and use of x-ray film has been introduced into hospitals only during the past six or seven years; x-ray films were first manufactured during the war for army use. After the war they came into general use and it was found that they so improved x-ray technique that in a year or so they entirely superseded plates so that at present probably ninety-eight per cent of the x-ray work in this country is done on films and it would be impossible to do this work as efficiently on plates. To free hospitals of this film danger, all of the nitro-cellulose x-ray films should be properly stored in cabinets or approved fire-resistive vaults.

It seems, however, that the future solution of the matter is to substitute the use of the inflammable nitro-cellulose film with the non-flammable cellulose acetate or safety film.

It is interesting to note the burning tests which have been made on cellulose acetate x-ray films. From a chemical standpoint it is known that there should be no dif-

(Continued on page 586)



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HOSPITAL EQUIPMENT AND OPERATION

With Special Reference to Laundry, Kitchen and Housekeeping Problems

Conducted by HERMAN SMITH, M.D., Superintendent
Michael Reese Hospital, Chicago, Ill.

EQUIPPING THE X-RAY AND PHYSIOTHERAPY DEPARTMENTS

PROBABLY no other factor has contributed so much toward advancing the medical sciences as the x-ray since its discovery by Professor Roentgen in 1895. Today no hospital can be considered modernly equipped unless it has available an x-ray apparatus for diagnostic purposes, at least. And at present many of the larger institutions are equipped completely not only for x-ray diagnosis, but also for deep x-ray therapy of malignancies, using the higher voltages.

The Coolidge x-ray tube is in universal use, superseding the gas tube for the reason that the volume of x-rays emanating is under absolute control of the operator.

While it is possible to obtain an x-ray machine generating 200,000 volts as used in deep therapy, and which may also be utilized for diagnostic purposes, still many institutions install two separate units for these respective purposes. This, of course, depends on the extent and volume of work to be done, as well as on the amount of space available.

The major x-ray equipment is often supplemented with a semi-portable or portable x-ray apparatus, which makes it possible to take radiographs at the bedside, in cases where the condition of the patient is such that he cannot be conveniently moved to the x-ray department. These smaller x-ray units obviously are not sufficiently powerful for a complete range of radiography, but are used mostly for bone work.

Principal Items of Working Outfit

The principal items (electrically operated) comprising a working outfit are:

1. X-ray transformer, for generating the high tension current.
2. The Coolidge x-ray tube.
3. Overhead system, for conveying the high voltage from the transformer to the x-ray tube.
4. X-ray table, (with a support for the x-ray tube) on which the patient is placed. This may be a combination table for both radiographic and fluoroscopic diagnosis. Separate units (roentgenoscopes) are often used for fluoroscopy, in horizontal or vertical position. Here again the volume and the nature of the work are the deciding factors.
5. X-ray timer for automatically measuring the desired period of exposure.
6. Victor-Kearsley stabilizer, for controlling and stabilizing the x-ray current when there is fluctuation on the "line" supply.

7. Stereoscope, for illuminating stereoscopic radiographs; also illuminating boxes for viewing straight radiographs.

8. Milliamperemeter for measuring the current imposed at the x-ray tube; voltmeter for determining "penetration" values; also ammeter, for measuring the current imposed on the filament in the Coolidge tube.

9. Water cooling system, when the Coolidge high voltage deep therapy water-cooled tube is used.

10. Dark room lamp used in the development of x-ray films.

11. Fluoroscopic lamp, a green light for illuminating the room during fluoroscopic examination.

The Physiotherapy Department

Since the World War during which physiotherapy measures were employed with such gratifying results in reducing the period of disability of service men, the medical profession has come to recognize more fully the value of the various agents which come under the category of physiotherapy.

It is now conceded by many medical authorities that it will be but a short time before the modern hospital will consider physiotherapy equipment equal in importance to x-ray equipment. To quote one authority: "There is everywhere evidence that insurance companies and modern surgical hospitals are fully realizing the great possibilities. But physiotherapy is penetrating into every department of medicine, and its coordination will benefit the internist, the neurologist, the gynecologist, the dermatologist and the pediatricist considerably."

Electricity is the first essential for the production of most of the physiotherapy agents. It is used to energize high frequency apparatus, galvanic and sinusoidal apparatus, quartz lamps for ultra-violet therapy, phototherapy lamps, massage vibrators, light bath cabinets, and mechanotherapy apparatus.

High Frequency Apparatus

The high frequency current derives its name from the fact that the ordinary lighting current is imposed on a transformer which steps up the voltage to as high as 40,000, and by means of condensers increases the oscillations (frequencies) of the alternating current to many hundreds of thousands per second. Because of the extremely high frequency of these oscillations, it becomes possible to introduce the current of high voltage and considerable milliamperage to the body.

The effect produced by a high frequency current is a heating of the tissues, and may range from a slight irritation of the skin and the production of a simple hyperemia, to coagulation and dessication. The action may be localized in one area or generalized over the surface of the whole body. The current may penetrate the body at given points; a joint may be heated, as may the liver, lung, kidney or any other organ. This is generally known as medical diathermy (thermopenetration). It is important to state here that an application of heat diathermy is internally electrically developed in the tissues, as distinguished from other forms of heat applied externally, such as poultices, hot water bottles, electric pads, etc.

Raising the temperature of tissue beyond physiological limits to actual coagulation is called surgical diathermy. By this means it becomes possible to destroy diseased tissue. Not only is the mass of the tumor destroyed, but the deep penetration of high degree of heat destroys or at least inhibits instead of stimulating the neoplastic cells in the zone just beyond the periphery of the gross tumor mass.

Auto-condensation is another form of high frequency current whereby the electric force is transmitted to the body by induction instead of by conduction. This current is used for the treatment of hypertension.

Galvanic and Sinusoidal Apparatus

The galvanic current is utilized to advantage in medicine through its electrolytic or chemical action. The destruction of various growths such as warts, moles, hypertrichosis, also the destruction of hemorrhoids by electrolysis, are well known processes. By a method known as ionic medication various curative drugs may be introduced into the tissues.

With the sinusoidal current, mechanical contractions of nerves, muscles, ligaments and viscera may be produced. These contractions (involuntary) may be general or local, slow or rapid, superficial or deep, irregular or so rhythmic that they may be made exactly to synchronize with the heart beat. The correct employment of these electrical contractions—alternating with relaxations accomplishes exercise without fatigue, with the incidental stimulating, developmental, eliminative and metabolic effects.

Quartz Lamps for Ultra Violet Therapy

Medical literature shows that ultra-violet light provides a safe, efficient agency for the control of infection, for the alleviation of pain, and for the reconstruction of devitalized tissues. The modern quartz lamp makes possible the intelligent application of a concentrated ultra-violet energy superseding that of the sun.

The chemically active energy of ultra-violet radiation has been characterized as *actinic*, a term that is nearly synonymous with ultra-violet. This energy is obtained by two types of quartz lamps, air-cooled and water-cooled. The water-cooled lamp is relatively richer in short wave lengths than the corresponding air-cooled lamp. On the basis of this physical difference, it has been generally taught that the air-cooled type is used for "systemic" irradiations, due to biologic effects and the water-cooled type for "focal" or cavity work, due to the bactericidal effects.

NEW BEDPAN WASHER IN COMPACT FIXTURE

A new bedpan washer designed, after a year of testing, for installation in a large New York hospital is attracting wide attention from hospital architects and superintend-

ents. The installation and use of the first model in the New York hospital proved the superiority of this device from the standpoint of simplicity of construction and the ease and quickness with which it automatically empties and washes the bedpan in less than a minute.



Bedpan washer set into wall.



The pan is washed by the pressing of the knob in the wall.

As shown in the illustrations, the washer is a compact fixture which can be built into the wall with only the cover exposed. The nurse presses her foot on the pedal causing the cover to drop automatically in a horizontal position forming a shelf on which she places the bedpan. There are no springs or clamps to be fastened. The door is pushed shut, the latch closes, the nurse presses the



The cover drops as the foot is pressed on the pedal.

porcelain lever and the pan is dumped and washed automatically inside the air-tight hopper, and the contents are flushed into the sewer. The nurse need not wait, for the automatic valve allows the water to run just long enough to wash the pan and then shuts off. The pan may be left in the hopper until needed again. This device may be built in the wall or may be left in the open the same as any other washer or plumbing fixture.

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ELECTRICALLY HEATED LAUNDRY MACHINERY

THE recent successful application of electricity for heating small flat work ironers and drying tumblers should be of great interest to superintendents of small hospitals. Electrically heated pressing machines have been available for some time, but because other machines required high-pressure steam, there was no advantage in installing this machine. Electrical units, as now made, last indefinitely, and there is no objection to them from the standpoint of cost of replacements, this expense being negligible.

Heretofore, in order to get satisfactory results, where a laundry is operated by a small hospital, it has been necessary to maintain a supply of high-pressure steam for heating the flat work ironer and the drying tumbler. While it is possible to heat these machines with gas, there are so many objectionable features to that method that it seldom is adopted as an expedient. But as no objectionable feature arises with the use of these electrically heated machines, and as there is no necessity of having steam lines to the washers, the principal problem of the small laundry department seems to be solved.

Flat Work Ironer for Small Hospital

A small electrically heated flat work ironer and a small electrically heated drying tumbler have just been brought out by a large manufacturer of laundry machinery. The flat work ironer has a single roll, sixty-six inches in length, which is large enough for a small hospital, as it will permit the ironing of sheets, tablecloths, spreads and other large articles without folding. Aprons and other flat articles may be sized, or starched, and ironed on this machine. The tumbler is thirty by forty-two inches in size, and has ample capacity for use in a small plant. The heating elements are applied in these units in the place where steam formerly was used, and in other respects they are the same as the familiar steam-heated machines of the company, and have equal capacity and efficiency.

With sheets and similar goods the flat work ironer has a capacity of nine feet per minute, which would give it a capacity of about thirty sheets per hour, where they are properly extracted and where they are of the ordinary length and not wider than the machine, which will rarely be the case in a hospital. Its current consumption for heating is small, being but fifteen kilowatts per hour. There will be an additional expense for electricity for power, but this is negligible.

The drying tumbler consumes thirty kilowatts per hour, and with current at two cents per kilowatt the cost of heat for drying 100 pounds of properly-extracted goods will be approximately ninety cents. To this should be added the cost of current for power, which with current at this rate will be approximately five cents per 100 pounds of goods. It should not be forgotten that thorough extracting reduces the drying time and current consumption, and it should be remembered that the machine should be stopped as soon as the goods are dry.

Cost Same as that for Steam Machine

The cost of current for power will, of course, be the same for a given electrically heated machine as it is for one that is heated by steam, if the rate per kilowatt is the same. In some cases the power cost may be reduced where electricity is applied for heating, because a lower price per kilowatt is given for increased consumption.

In the past, the main obstacle to conducting a laundry department in a small hospital has been the necessity of providing high-pressure steam. Now that there are available these electrically heated machines for ironing and for drying, there is no longer a necessity for high-pressure steam, and the one great obstacle is removed. The usual type of low-pressure heating apparatus can be employed for heating the hospital, and there will be no need of employing a high-salaried engineer in the day, and perhaps in the night.

There is no necessity of having steam lines to the washing machines. Every hospital must maintain a water heater of some kind, and in many the supply will be adequate for the laundry. In case the water is very hard a softener will be necessary, and in this event it will be well to treat the entire water supply of the hospital, not merely the water used in the laundry. If the general hot water supply of the institution is not sufficient to supply the laundry department, an individual heater may be installed at a comparatively small expense.

Boiling of Goods Not Desirable

Boiling for the purpose of sterilization of goods is neither desirable nor necessary, and therefore, as has been stated, it is not necessary to admit steam to the washer for the purpose of bringing the water to a high temperature. The boiling of goods is not desirable, because it has a tendency to "pulp" the fiber. Tests made by bacteriologists show that cotton and linen fabrics are completely sterilized by the ordinary washing process, with the use of soap and soda, and with a ten-minute hot suds, at a temperature of 170 to 180 degrees. There should be attached to the washer a thermometer to show that this temperature is reached. To be sure that the sterilization is complete, tests of fabrics washed should be made at intervals by the bacteriologist of the hospital. Fabrics from contagious cases, of course, should be sterilized before sending them to the laundry.

Power May Be Furnished at Low Rate

In most cities, the public service company will furnish current for power and for heating at a very low rate. Often this will be as low as two cents a kilowatt, and seldom will it be higher than three cents. Usually there is a sliding scale, with a reduction for increased consumption, and in such cases an increased use of current may result in a reduction of the total of the bill. For instance, when the Good Samaritan Hospital, Cincinnati, installed an electric oven, it increased its consumption of electricity enough to earn a lower rate per kilowatt, and thus its total monthly bill for current was decreased.

Electrically heated laundry equipment offers several advantages besides removing the necessity of maintaining a high-pressure boiler. First of all, it removes the necessity of having an expensive detached power plant building and laundry. It also removes the necessity of a large outlay of money for the maintenance of the plant, which must each day, and perhaps also at night, be superintended by a highly paid engineer.

Electric Machinery Easier to Install

In the matter of installing, electrically heated laundry machinery is much more convenient than steam-heated. The units can be placed in any location desired, without regard to the distance from the boiler. There is no difficulty in piping hot water a distance. In case the

machines are heated by steam, in order to get really satisfactory results, the laundry must not be more than a hundred feet from the boiler. When electrically-heated machinery is used, the machines may be located in any part of the building, with regard to the greatest convenience.

Convenient and Economical

Another advantage is that all steam piping to and in the laundry can be omitted, and thus a source of trouble and expense is done away with. Besides this, there is always an element of danger in connection with high-pressure steam lines. Still another advantage rests in the fact that simply by turning a switch the machines can be heated instantly, and when the employees are through using them all they have to do is to turn the switch off. If it is necessary to do a little work on a holiday or on a Sunday, it is not necessary to have the engineer come and get up steam for the benefit of the laundry.

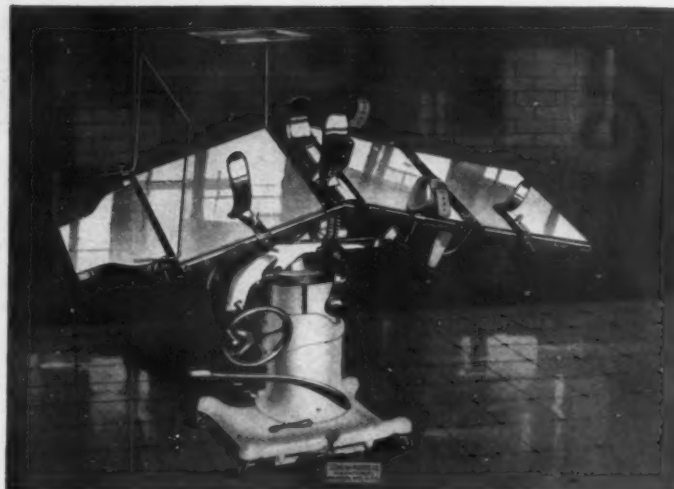
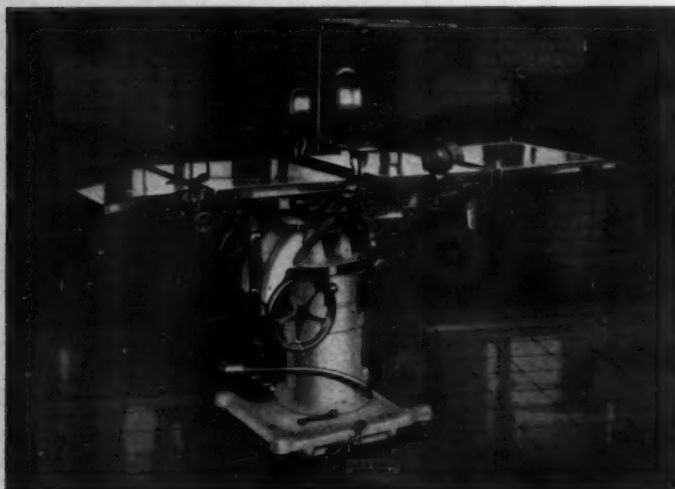
The following may be taken as an example of what it may cost to operate a complete, detached power plant in a small hospital: Assume that it is necessary to have a high-pressure boiler, developing 45 horsepower, and an engine and generator that will develop 25 kilowatts. The yearly cost of operating this plant is approximately \$825 for fuel and water, \$1,400 for depreciation, including building and accessories, and \$1,800 for wages of a licensed engineer. This makes a total cost of \$4,025, and if a night engineer is employed the cost will be more than \$5,000.

Yearly Cost of Operation

If the hospital should install only a small plant, just large enough to furnish heat and power for the two steam heated machines, the cost would not be as great as the foregoing, but still it would be large. It would need a high-pressure boiler of seven boiler horsepower, with a suitable engine and accessories. The yearly cost of operating this small plant would be approximately: fuel and water, \$150; depreciation on machinery, building and accessories, at 10 per cent, \$550; wages of licensed engineer, \$1,800; incidentals, \$100; total, \$2,500.

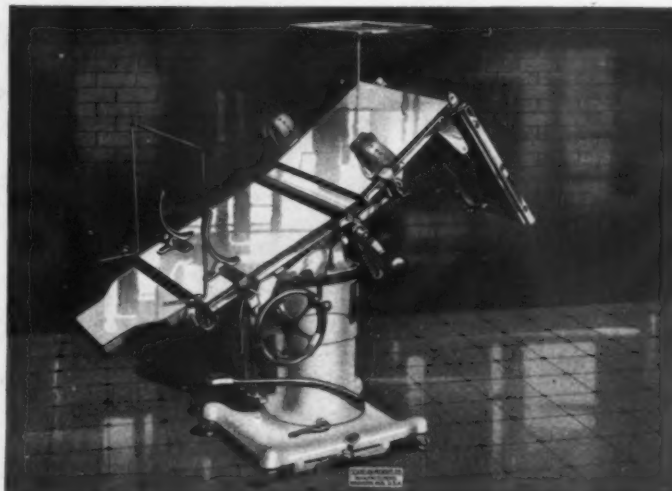
NEW IMPROVED OPERATING TABLE

The new six-foot operating table, shown here in three views, has been designed for general operating purposes to provide the greatest number of positions with the least effort on the part of the operator. By means of a worm gear ratchet and hand wheel, the table top can be



tilted to either side to any degree. The table top is raised, lowered, or rotated by means of an oil pump controlled by foot levers. In all positions, the center of the body section can be depressed for relaxation of the abdominal muscles, and in all positions the table may be tilted to either side quickly and easily.

The table top is divided into five sections, the head



piece, the upper body, the body elevator, the lower body and the leg sections. The leg section carries a foot piece, adjustable along the side rails of this section to accommodate the length of different patients. The head piece is adjustable to any angle and may be locked or released instantly by means of a heavy set screw.

The center, or body section, of the table is made in three parts and can be used either in a straight plane, its center raised or lowered to secure anglication, by means of worm gear and ratchet, or the body elevator raised independently in the same manner.

The leg section of the table, when necessary, may be dropped to an angle of ninety degrees. Its descent is broken by means of an oil pump which allows it to descend without jar or noise.

The rectangular base is of a size and weight that will hold the table perfectly rigid and the telescoping pedestal is machined so that it moves up or down without vibration and without friction.

The table is equipped with accessories including anesthetizers's screen, shoulder crutches, saddle horns, chest horn, leg horn, wristlets, improved Bierhoff crutches, instrument rack, body strap and adjustable foot piece.

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ADAPTABILITY OF TILE TO HOSPITAL REQUIREMENTS*

BY CARL H. GEISTER, INDUSTRIAL FELLOW, MELLON INSTITUTE OF INDUSTRIAL RESEARCH, UNIVERSITY OF PITTSBURGH, PITTSBURGH, PA.

YOU, who are specialists in hospital management, will doubtless be interested to learn of the pertinent results obtained so far in an investigation of tile that is being carried on at Mellon Institute. This research, which is being conducted under the auspices of the Associated Tile Manufacturers, has for its purpose the determination of the suitability of tile for specific uses. The properties of tile are being studied broadly and its adaptability as a flooring material is being considered from chemical, physical and hygienic viewpoints. The object of this progress report is to summarize the experimental findings to date that are of special interest to hospital officials.

Requisite Properties of Floor Materials

In the course of the present investigation it was found desirable to lay down certain requirements as essential properties of an ideal floor material for hospitals. The requirements thus established are as follows:

(1) *Sanitary requirements*—The material must be waterproof, resistant to decay and inimical to the growth of microorganisms. It must reflect (without glare) the proper amount of light and have certain structural features that facilitate the process of cleaning.

(2) *Durability*—An ideal material is resistant to abrasion, deterioration, fire, absorption of liquids, staining, pitting and the action of chemicals. Its transverse, tensile and impact strengths must be such that they will resist the forces to which finishing materials are commonly subjected in use. Its linear coefficient of expansion must be in accordance with those of the other structural materials used, in order to avoid cracks and bulges. Its thermal conductivity should be low and its dielectric strength such that adequate safety is insured with modern electrical equipment.

(3) *Esthetic and comfortative requirements*—The finishing material must be permanently pleasing to the eye with respect to appearance, reflected light and cleanliness. The surfaces must be easy to walk on with reference to plane, resiliency and firmness. Safe frictional resistance and low thermal conductivity values are desirable.

(4) *Economic considerations*—A finishing material that fulfills all these requirements and gives the longest effective service at the least cost is regarded as economical by structural engineers and architects.

Experimental Investigation of Tile

The investigation at Mellon Institute has been carried on so far entirely by means of practical laboratory tests.

The factors of sanitation connected with proper lighting, surface smoothness, accessible corners, and decomposition by oxidation or microorganisms have been studied by critical analysis of available technical information and suggestions of scientists, engineers and users. The following experimental tests have been applied thus far in giving attention to physical properties of major importance: (1) abrasion, (2) absorption, (3) resistance to chemicals, (4) frictional resistance, (5) resistance to heat,

(6) indentation, and (7) resistance to staining.

Abrasion:—The method adopted was the application of concentrated mechanical wear upon the materials under examination. The conditions of wear have been adjusted to make them similar to those found in actual use, but more severe in order to shorten the period of testing. The results thus obtained and the information from the relevant literature and from practical experience were then studied critically.

Special Apparatus for Abrasion Test

A special apparatus for conducting the abrasion test was constructed to meet the following requirements: (a) The experimental wearing operation shall be completed in a short time. (b) The sample shall be the standard commercial product. (c) The sample shall be of such size and weight that a high degree of precision in measurements can be maintained. (d) The degree and type of slippage shall be similar to that produced in the natural wearing processes. (e) A heavy, slow-moving load shall be applied. (f) There shall be no excessive rise in temperature. (g) Water shall not be used as a cooling agent or carrier of the abrasive. (h) The abrasive must be similar in character to that found on the average floor. (i) Only materials commonly applied to actual floor installations shall be used to produce the wear.

This apparatus subjects the moving samples to wear against a leather wheel of special design in conjunction with a standard abrasive. The characteristic movements of the walking process have been imitated. A straight and twisting slippage as well as an intermittent releasing of the pressure has been developed. The percentage losses in weight and thickness that resulted from twelve hour testing periods were recorded.

Absorption:—A systematic study of materials was conducted in which the amount of absorption per unit time was ascertained to a close degree. A practical procedure of testing was used in which the samples were submerged in water for five-day periods and the increases in weight measured. This method is in accordance with that prescribed in the *Navy Department's Specifications* (2911C of September 1, 1916). No tests were made on glazed floor tiles, because they offer a surface similar to vitreous tiles after being installed. A study was also made of the deteriorating effects of water upon the materials.

It was found that tiles are not affected by exposure to water and that vitreous tiles especially are impervious to water. Worn samples were also submitted to the absorption test.

Resistance to chemicals:—The materials were submerged in solutions of several acids and alkalies. Weight decreases and descriptions of the deteriorating effects observed were noted for the samples tested.

The chemicals selected were as follows: (a) 95 per cent sulphuric acid, (b) 55 per cent nitric acid, (c) 35 per cent hydrochloric acid, (d) 5 per cent phenol, (e) 50 per cent sodium hydroxide, (f) 4 per cent sodium hypochlorite, (g) 5 per cent tincture iodine, and (h) 5 per cent potassium permanganate.

It was found that tiles are very resistant to the action of these chemicals.

*A preliminary report presented before the twenty-sixth conference of the American Hospital Association, Buffalo, N. Y., October 9, 1924.

Frictional resistance:—The static coefficients of friction between clean new materials and dry leather or rubber surfaces were found, because this factor is indicative of the readiness with which slippage starts. A study was also made of the effects of water and other detergents on the materials. It was learned that water applied to clean materials increased their frictional resistance. The application of soaps, and other detergents decreased the frictional resistance. The average of the static coefficients of friction for tiles is slightly above the average of the nineteen other materials tested.

Failure Due to Combustion or Decomposition

Resistance to heat:—The materials were subjected to heat in a well-ventilated oven. The temperature was raised successively by one-hundred degree centigrade intervals up to 300° C. or until those temperatures below 300°C. were reached at which signs of deterioration appeared and the sample failed. When failure resulted it was due either to combustion or decomposition of the material. New samples were used for each testing period.

Tiles showed no signs of deterioration or of failure.

Indentation tests:—Concentrated loads were applied to the materials through furniture casters representative of those used in hospitals. Varying loads were applied according to the type and size of caster used.

Resistance to staining:—The materials were submerged in five per cent solutions of methylene blue, eosin, iodine and potassium permanganate. After a definite period of time, the samples were removed and broken apart. The degrees of surfaces staining and the depths of penetration were noted. The removal of stains was also studied.

Tiles are not susceptible to permanent staining. Because of the fact that tiles are resistant to chemicals, the stains could be removed without injury to the samples tested.

Summary of Experimental Results

The experimental findings are presented concisely in Table I.

Several samples which were worn in the abrasion test also were submitted to the absorption test in order to study their interior properties. The results obtained are given in Table II.

These results indicate that tiles are of a homogeneous nature throughout.

Vitreous tiles are the only material tested thus far that do not show an increase in weight due to absorption.

TABLE II.

Material	Percentage increase after one day in water	Percentage increase after two days in water	Percentage increase after five days in water
Vitreous tile (1) average worn.....	0.0	0.0	0.01
Vitreous tile (1) average new.....	0.0	0.0	0.0
Semi-vitreous tile (2) average worn..	5.15	5.71	6.20
Semi-vitreous tile (2) average new..	5.19	5.52	5.95
Rubber (1) average worn.....	1.21	1.52	2.40
Rubber (1) average new.....	0.69	1.01	1.45
Rubber (2) average worn.....	0.48	0.55	0.78
Rubber (2) average new.....	0.20	0.33	0.45
Linoleum (1) average worn.....	3.22	4.30	5.81
Linoleum (1) average new.....	1.68	2.46	3.49

Vitreous tiles are resistant to abrasion, stain, strong chemicals and fire. Continued exposure to light, heat and moisture does not deteriorate them. Their relatively smooth surfaces are hygienically desirable. Sanitation is increased by the reflected light furnished by the use of proper tiles. Their physical properties and characteristics combined with simple cleaning methods, make tiles an advantageous material for hospitals. They meet all requirements to an exceptionally large degree.

The hope is expressed in closing that the privilege will be extended to present a complete report upon the completion of this investigation.

STANDARD SIZES FOR HOSPITAL BED BLANKETS

The recommendations of the joint conference on bed blanket sizes which met in Washington, D. C., February 1, 1924, have become effective November 1, 1924. The conference was made up of representatives of manufacturers, distributors and users, and was held under the auspices of the United States Department of Commerce through the Bureau of Standards. The standard adopted provides six sizes for single, and six sizes for double beds and has application to wool, wool mixed and cotton blankets. The size of blankets was thus reduced from seventy-eight to twelve sizes.

The following table gives the sizes in inches:

Width	Length	Width	Length
54	76	66	84
60	76	66	90
60	80	68	80
60	84	70	80
64	76	72	84
66	80	80	90

TABLE I.

The results are based on the average of varying numbers of tests made on individual trade materials of the types designated.

Type of Material	Abrasion test. Percentage loss—12 hrs. exposure.	Absorption test. Percentage gain—five days.	Resistance to chemicals ¹ .	Frictional resistance test, static coef. of friction on leather and rubber.	Heat test. Deteriorating and failure temperatures, degrees centigrade.	Indentation test. Depth permanent depression one in. caster —48 hrs. 75 lbs. ²	Resistance to straining ⁴ .
Vitreous tiles	3.06	0.0	A	0.541—0.594	.....	0.000 in.	A
Vitreous ceramic mosaic.....	.....	0.0	A	.....	.....	0.000 in.	A
Semi-vitreous tiles	5.57	4.69	A	0.540—0.668	.....	0.000 in.	B
Glazed vitreous tiles.....	.....	0.0	A	.....	.....	0.000 in.	A
Glazed semi-vitreous tiles.....	.....	.....	A	.....	.....	0.000 in.	A (Glaze)
Rough paving tiles.....	.....	3.21	B	.....	100 ³	0.000 in.	C
Rubbers	10.47	1.02	C	0.568—0.569	100—300	0.002 in.	C
Linoleums	28.65	6.08	C	0.619—0.602	100—300	0.011 in.	D
Corks	22.58	20.18	C	0.562—0.616	100—300	0.020 in.	D
Magnesite compositions .....	.....	8.25	D	0.341—0.612	100—300	0.000 in.	E
Asphaltic compositions .....	.....	0.82	B	0.528—0.664	100—300	0.010 in.	B
Marble aggregates	17.30	5.02+	D	0.387—0.489	200—300	0.000 in.	E

1. The letters tabulated represent the composite resistance of the materials to the action of hydrochloric, sulfuric, nitric and carboric acids, sodium hydroxide and sodium hypochlorite, based on measured weight losses and judged by physical appearance.

2. Slight loss in weight; appearance and strength of samples unchanged.

3. These measurements were taken after the sample had rested for one week.

4. The letters tabulated are based on degree of surface staining, depth of penetration, ease of removing stains and resistance to the action of chemicals by the materials. Solutions of methylene blue, eosin, iodine and potassium permanganate were used as staining agents.

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	2%	5 drachms	" " "
	3%	7½ drachms	" " "
	5%	10½ drachms	" " "
One gal.	1%	1¼ fl. ounces	Enough to make 1 gallon
	2%	2½ fl. ounces	" " "
	3%	3¾ fl. ounces	" " "
	5%	6¼ fl. ounces	" " "
Two gals.	1%	2½ fl. ounces	Enough to make 2 gals.
	2%	5 fl. ounces	" " "
	3%	7½ fl. ounces	" " "
	5%	12½ fl. ounces	" " "
Three gals.	1%	3¾ fl. ounces	Enough to make 3 gals.
	2%	7½ fl. ounces	" " "
	3%	11¼ fl. ounces	" " "
	5%	1 pint, 2¾ ozs.	" " "
Four gals.	1%	5 fl. ounces	Enough to make 4 gals.
	2%	10 fl. ounces	" " "
	3%	15 fl. ounces	" " "
	5%	1 pint, 9 fl. ozs.	" " "
Five gals.	1%	6¼ fl. ounces	Enough to make 5 gals.
	2%	12½ fl. ounces	" " "
	3%	1 pt. 2¾ fl. ozs.	" " "
	5%	1 pt. 15¼ fl. ozs.	" " "

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DISPENSARIES AND OUT-PATIENT DEPARTMENTS

Conducted by MICHAEL M. DAVIS, JR., Ph.D., Executive Secretary, Committee on Dispensary Development, United Hospital Fund of New York, 15 W. 43rd Street, New York
and by ALEC N. THOMSON, M.D., Medical Secretary, Committee on Dispensary Development, United Hospital Fund of New York, 370 Seventh Avenue, New York

WHO ARE DISPENSARY PATIENTS?

By GERTRUDE HOWE BRITTON, SUPERINTENDENT AND DIRECTOR OF SOCIAL SERVICE, CENTRAL FREE DISPENSARY, CHICAGO, ILL.

THE Central Free Dispensary of Chicago has been in continuous operation since 1867, and has been operated in affiliation with Rush Medical College since 1875. The dispensary has grown steadily until at the present time it prides itself on its high standard of service, and on being one of the largest in number of staff and number of patients in the country. This standard of service has been made possible through the close affiliation with Rush Medical College, the Presbyterian Hospital, and the Training School for Nurses of the Presbyterian Hospital.

Patients Average 300 Daily

The medical staff numbers more than one hundred doctors in regular attendance at clinics, and the average number of patients exceeds 300 per day.

Those who are immediately responsible for the work of the dispensary, as well as those who are interested as supporters, not infrequently are called upon to answer such questions as, "Who are the people being served?" "Is this service generally satisfactory?" "From a public policy standpoint is this dispensary service necessary and worth while?"

It seemed advisable to make some sort of check up in order to show, at least in a measure, who were receiving service at the Central Free Dispensary, what was the nature of this service, and what was being accomplished by this service.

With this idea in mind an analysis of cases and case service was made by the administrative staff of the dispensary, the detailed work of this analysis being done by Miss Kate Constable.*

A comprehensive study, covering every patient served over a long period, while theoretically desirable, seemed too great an undertaking at the time. It was therefore decided, as a preliminary study to make a limited analysis covering a short period of time and a comparatively small number of patients. It is believed that even this single cross section will make it possible for those who are interested to get a general notion as to who are being served by the dispensary, and what is being accomplished for those served.

While the number of patients visiting the dispensary daily exceeds 300, only about sixty of them are new patients, coming to the dispensary for the first time. It

was decided to choose arbitrarily for examination, the records of 500 consecutive new patients. These patients were selected beginning with January 2, 1923, and include the entire list of new patients for about ten days. The study of their records was begun on February 1, 1924, a little more than one year later, and the study includes the accumulated records for the year.

Who Are Dispensary Patients?

The records of 500 cases were studied in detail in order to determine the social and economic condition of those seeking dispensary service. From this analysis the following calculations were made.

Nationality and Religion

While 62 per cent were born in America, only 47 per cent gave their nationality as American, the others considering themselves still of the nationality of their parents. Of the native-born patients, 61 per cent were born in Chicago. Three-fourths of the native-born had been in Chicago as long as three years, and three-fourths of the foreign-born had been in the United States ten years previous to their admission to the Central Free Dispensary. As to religious affiliation, 45 per cent of the patients were Catholics, 28 per cent were Protestants, and 22 per cent were Jewish, with one Hindu, nine having no religious affiliations, and thirteen not reporting.

Over half, or 60 per cent were males, and their ages ranged from infancy to over seventy years, with the largest proportion from fifteen to forty years. Thus 17 per cent were under six; 24 per cent were between twenty and thirty; 16 per cent were between thirty and forty years, with 22 per cent over forty.

Family Responsibility

Nearly three-quarters of the patients were members of family groups, only 27 per cent being single individuals living alone. Those living in families were mainly non-wage earning, being made up as follows: dependent children, 30 per cent; housewives, 18 per cent, and 2 per cent were dependent adults. Chief wage earners constituted 15 per cent, wage earning children 5 per cent, and 2 per cent were wage earning mothers. The whole group was evenly divided between wage earning and dependent, 50 per cent being in each class.

Among the families represented 324, or 64 per cent, had dependent children. Families ranged from two to eleven members, with an average size of five. In 24 per cent

*See complete report, "Dispensary Patients. A Study of 500 Consecutive New Patients Admitted To Central Free Dispensary," by Kate Constable. Published May, 1924, Chicago.

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the chief wage earners made less than \$30 per week. In 30 per cent of the families the chief wage earner was out of work. More than half, or 58 per cent of the single individuals were unemployed. The average duration of unemployment was three months for the chief wage earners with families, and two months for single individuals. In 67 per cent of the families there was only one wage earner.

The average income of the single individual who was working was \$20 per week. The average income per week, per person, for individuals with families ranged from \$16 for families of two members, \$7.70 in families of three members, decreasing to \$3.30 in families of nine and ten members.

Only 4 per cent of the patients owned or partially owned the houses in which they were living, 56 per cent paid less than \$20 a month rent, and 80 per cent paid less than \$30. Only four cases, or less than one per cent of the applicants, were refused admission on economic grounds.

Wide Variety of Occupations

Among the families represented the occupation of the chief wage earner was recorded in only 65 per cent of the cases, the others being either unoccupied, or their occupations unknown. Among those where the occupation was known, 36 per cent were unskilled laborers, and 4 per cent peddlers, making 40 per cent in this unskilled group. Among the others, 34 per cent were skilled laborers or tradesmen, 8 per cent clerical workers, and 8 per cent domestic workers, 4 per cent civil servants, 3 per cent in small business, 2 per cent salesmen, and 1 per cent teachers.

How Patients Learned of Dispensary

Three hundred ninety-five, or 79 per cent of the patients, were referred to the dispensary by other patients, 13 per cent by some medical or health organization, 5 per cent by a non-medical social organization, and 4 per cent by private doctors, or doctors from commercial houses. Nearly half, or 43 per cent of the families were known to a total of eighty-three other agencies in Chicago, twenty-one of which were medical, eleven health, and forty-one, charitable organizations.

Dispensary Service

The second part of the analysis consisted of a study to determine what happened to the patients after they came to the dispensary. From the accompanying table it will be noted that more than half were referred to the general medical, nose, throat and ear, skin, eye and surgery.

DISTRIBUTION OF 500 PATIENTS BY CLINIC DEPARTMENTS

Clinic department	Number	Per Cent
Throat, nose and ear.....	75	15
General medicine	68	14
Skin	67	13
Eye	61	12
Surgery	55	11
Pediatrics	38	7
Genito-urinary	36	7
Gynecology and obstetrics	27	5
Lues	21	5
Industrial medicine	13	3
Infant welfare	10	2
Cardiac	10	2
Neurology	9	2
Others (speech, orthopedics, diabetes, physio-therapy)	10	2

Duration of Complaints

The duration of the complaints for which the patients were seeking medical treatment varied from a few days to fifteen years. One hundred and thirty or 26 per cent had acute symptoms lasting from two days to three weeks. Three hundred sixty-five or 73 per cent described their symptoms as having existed from several months to several years. Five, or 1 per cent came for general health examinations only, being admitted to pediatrics. The three hundred and sixty-five patients who had chronic long standing complaints were probably seeking medical care at the dispensary after unsuccessful treatment elsewhere, or for disease conditions which, from long standing, were seriously interfering with their economic independence.

Of the patients who applied to the dispensary in January, 73 per cent were suffering from chronic complaints, and 38 per cent of the patients had general health handicaps; 39 per cent were moderately handicapped industrially; 9 per cent were venereal cases, and only 3 per cent were totally disabled. One per cent came for health examinations.

The treatments which these patients were advised to have included those given in the dispensary and those which the patient could apply at home; 12 per cent were given advice in regard to hygiene and diet, and 5 per cent general advice. In 3 per cent of the cases no treatment was considered necessary; 4 per cent were advised to enter a hospital and 17 per cent were given medicines. However, of those given medicine, 10 per cent had other treatment in addition to the medication.

Estimated Handicap of the 500 Patients

In order to estimate roughly the degree to which the patients were handicapped by the conditions which led them to the dispensary, an arbitrary grouping was made, and the handicap of each patient estimated on the basis of the duration of the complaint, its interference with his working capacity, diagnosis that was made, and the treatment advised. The following groupings were used:

- | | |
|---------------------------------------------|--------------------------------------------|
| 0. No handicap, no need for treatment | 6. Serious industrial handicap—75 per cent |
| 1. Cosmetic only | temporary |
| 2. General health risk | permanent |
| 3. Venereal infections | progressive |
| 4. Slight industrial handicap—25 per cent | 7. Total temporary disability—100 per cent |
| temporary—acute | home care sufficient |
| permanent—chronic | hospital care sufficient |
| 5. Moderate industrial handicap—50 per cent | 8. Total permanent disability |
| temporary—acute | home care sufficient |
| permanent—chronic | hospital care indicated |
| progressive—chronic | |

The results of this grouping have been particularly interesting inasmuch as one hundred and ninety-three out of the five hundred, or 38 per cent came under the heading of general health risk; 16 per cent had a handicap of 25 per cent; 23 per cent had a 50 per cent handicap and 5 per cent had a 75 per cent handicap, while only 14, or 3 per cent had a total disability including two with a disability which could be considered permanent.

Social Service and Follow-Up

There is no sharp division between the work which is conventionally known as social service and the carrying out of much of the routine of clinic management. This service varies all the way from simple clerical routine by those members of the staff who are regularly assigned to clerical work, to intensive "case work," by thoroughly trained and experienced social workers. For the last three years it has been found that only in about two per cent of all cases was there need for intensive case study and

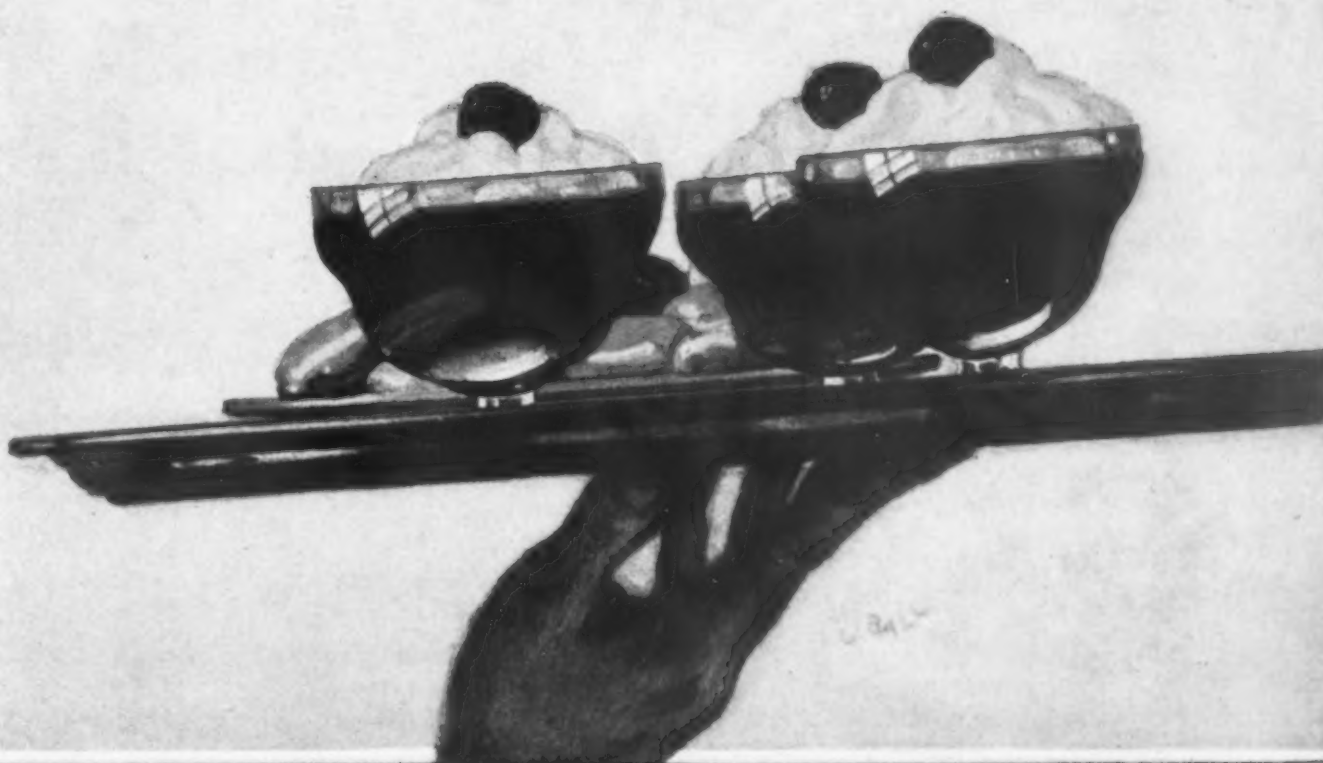
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social adjustments requiring trained social service. This same percentage was found to be true in the 500 cases studied.

As stated before, in addition to this intensive work on a small number of cases, a large percentage of the total number received a varying amount of routine service carried on as a matter of course without formal record on the history of the case.

The Central Free Dispensary does not maintain a staff of field visitors. It does, however, maintain an active cooperation with all social agencies and especially those which do maintain a regular staff of field visitors. This cooperation with such organizations makes it possible for the Central Free Dispensary to serve adequately those coming to the dispensary without expensive and useless duplication.

One of the chief problems of clinic management is to bring the patients back to the clinic until their treatment is completed. For this purpose much effort is put forth on the part of the clinic workers while the patient is in the clinic, in visits to patients and in sending out follow-up letters to patients who have failed to return as they were advised. No attempt was made in this study to estimate the amount of effort or even the number of letters sent, but it is a matter of routine to write all patients who fail to return and who in the opinion of the doctor in the clinic should return for further treatment.

More than half of the patients responded satisfactorily to the clinic routine and advice. Of 30 per cent it was impossible to say whether or not they had cooperated, while in only 17 per cent was the cooperation definitely poor and unsatisfactory.

Duration of Treatment

The average duration of treatment in the dispensary was twenty-eight days, with three visits. The luetic patients made the largest number of visits, an average of nine per patient, and received treatment over the longest period, that is, eighty-two days as an average. Next to the luetics the largest number of visits was in the genitourinary department, with an average of five visits per patient. Cardiac patients remained under treatment an average of forty-five days, second in duration to luetics, with an average of two visits each.

Nearly half, or 44 per cent of the patients never returned after the first visit to the dispensary; 35 per cent made at least three visits, and 21 per cent at least four visits.

Nearly one-fifth, or 18 per cent of the patients were referred from one department to another for examination or treatment, or both. Of all those who were referred, 83 per cent went to the referred clinic as directed. And of the ones who attended referred clinics, 29 per cent were closed satisfactorily in the second clinic; 31 per cent were probably satisfactory and 40 per cent stopped unimproved or did not return after their first visit. And of those who stopped in unsatisfactory condition in the referred clinic, 25 per cent were only doubtfully satisfactory, and 15 per cent satisfactory. The disposition in referred clinics corresponded very closely to the dispositions in the original clinics, showing that patients who were cooperative in the original were equally cooperative in other clinics to which they were subsequently sent for further treatment. The only discrepancy was in those who were closed with no further need for return. In the referred clinics these amounted to 22 per cent of all those who were referred, while in the original clinics 11 per cent only were closed with no need for return. Many patients are referred to other clinics for diagnosis

only, not expecting to receive treatment except in the original clinic.

Number of Visits

The maximum number of visits made to other clinics was twenty-seven, by patients referred from general medicine. The average number of visits paid to clinics was three. The clinic referring the largest number of patients elsewhere for examination and treatment was the luetic clinic, which referred 33 per cent of all their patients elsewhere. The second was general medicine, in which 32 per cent of the cases were referred. Industrial medicine was third with 30 per cent of its cases referred to other clinic departments. From gynecology and skin all the patients who were referred visited the second clinic. From general medicine and eye, 90 per cent of the patients went to the clinics to which they were referred, and 83 per cent of the patients from surgery. Nineteen per cent of the refers that were made were to general medicine; 13 per cent each were referred to skin and gynecology and 12 per cent were to surgery. Of all the patients who were referred to general medicine from other clinics, 91 per cent attended as they were directed. Of those referred to gynecology and surgery, 88 per cent and 87 per cent respectively, attended these clinics.

Result of Treatment

Judgments as to satisfactory or unsatisfactory results were made entirely from the data recorded in the history charts, and an estimate made from the objective facts as far as they were available, and from the apparent facts, when definite data were not available. It is to be noted that these charts were not written with such a study in view, but were merely a sample of the usual work of the clinic, and the judgments are those of a third person reading the chart for the first time rather than that of a doctor who had seen the patient before, and to whose attention the record was recalled after the lapse of a year.

On their last visit to the clinic twenty-one of the 500 patients, or 4 per cent were considered well. An additional seventy-nine of the 16 per cent were improved to such an extent that return was considered unnecessary. One-fifth of all were definitely satisfactory, according to the records, and 15 per cent were improved but did not continue treatment as they were advised, while 5 per cent stopped attending after they were only slightly improved, and the condition of 17 per cent on the last visit could not be estimated. Altogether, the progress made under the treatment at the dispensary was uncertain in 37 per cent of the cases.

Nearly one-fifth, or 18 per cent of the cases admitted to the dispensary were closed in the clinic department where first examined and treated. Of these, 2 per cent were hospitalized, 2 per cent were transferred elsewhere, and 14 per cent were discharged well or improved. Two per cent of the patients were suspended and 1 per cent were still active after the lapse of a year. Only 24 per cent failed to return and could be called definitely unsatisfactory. The percentage of satisfactorily closed patients increased with the number of visits made. Of those making only two visits only 17 per cent were disposed of satisfactorily, while 36 per cent of those making three visits were closed satisfactorily.

This shows the advantage which the patient receives in continuing treatment and visits, which are advised and the value of follow-up work in bringing patients back to the clinic so that medical treatment may be completed. This is of advantage both to the doctor and the

(Continued on page 586)

*Detail refinements in Crane
plumbing fixtures
save time and add to comfort*



To save precious moments and to lighten the duties of nurses and attendants, Crane plumbing fixtures supply many extra provisions of convenience.

Drains, for instance, are made extra large for prompt, thorough removal of waste. Porcelain or enamel surfaces are carefully inspected at the factory to see that there are no pin-holes or other imperfections which might harbor dirt and germs. Faucets, too, are carefully designed, built and assembled, and are finally tested thoroughly to make sure of faultless operation.

Both physicians and nurses appreciate the perfection of details in Crane hospital plumbing fixtures.

At the right are pictured typical installations of Crane plumbing in the Everett General Hospital, Everett, Washington. Stevens and Lee, Boston, are the Architects. A. P. Bassett, Plumbing and Heating Contractor.



Crane Globe Valve No. 1



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THE CLEVELAND CLINIC SURGICAL DISPENSARY

By JOSEPH K. SURLS, M.D., CLEVELAND, OHIO.

PERIODS of service both in a large public and a small private surgical dispensary have suggested to the writer that both time and energy could be saved in the average surgical dispensary by rearrangement and partial replacement of the furniture and material used. He further believes that these changes would not be expensive. The saving of time for all concerned and the added satisfaction in the work on the doctor's part would more than compensate for the additional outlay.

The plan outlined below has in view the treatment of about twenty-four cases in three hours by a single operator without the help of a nurse. If fewer cases were cared for, the waiting room could be reduced in size and one of the dressing rooms eliminated. If only one dressing room is used, it would be well to take several cases of the same sex in succession so that as little time as possible would be lost by dressing and undressing.

Advantages of Dual Arrangement

The advantages of a dispensary with a general plan like that shown in the accompanying plan are many. The waiting room is comfortable and is adjacent to the two rooms in which the dressings are done. Provision is made for two dressing rooms—one for female cases and one for male—separated from each other by a curtain, divided near its further extremity so that the operator can easily pass back and forth from one room to the other. In this way the operator can dress a case on the male side while that on the female side is getting ready, and vice versa.

The rooms are laid out exactly alike, thus having a two-fold advantage: (1) steps are saved for the operator who does most of his work at the dressing tables; and (2) the water and drainage pipes for both rooms are brought within as small an area as possible. The doors into the dressing rooms should open as indicated in the figure. The patient's name can be recorded immediately at the desk, her history consulted, or any other necessary record work done. There are sufficient hooks on the door to hold the clothing of two patients. The closet in the corner which reaches only as low as the level of a person's chest, when seated, contains the supply of dressings and other bulky materials for the room. Directly beneath it, on one side, a basin is fastened in such a manner that it can be swung or slid out and used for hand-soaks. On the other side standing on the floor is a basin for foot-soaks. The faucets are easily accessible. In front of the dressing table are two chairs facing each other for doctor and patient. The doctor's chair has its back to the curtain so that both the dressing table and the sterilizer are easy of access.

Sterilizer Heated by Steam

The sterilizer has its own water intake and outlet and is heated by steam. Beneath the dressing table is a waste can with an automatic lid worked by a foot-lever. The dressing table contains a drawer at the operator's elbow, in which are kept spare instruments, catgut, and other supplies. The operating table is of the three piece "breakable" type.

When possible it would be well to have the room lighted by a skylight extending over the operating table, dressing table, the two chairs for the doctor and patient and along the far end of the room. Artificial light is supplied by a large central ceiling light with additional lights over the

operator's chair and over the operating table. The heating arrangements are as indicated.

A summary of the essential supplies for the surgery with the exception of surgical instruments, syringes and sutures together with quantities in which they are most conveniently ordered, is appended.

- 1 bolt gauze, 100 by 1 yd.
- 2 lbs. absorbent cotton.
- 1 doz. bandages, 4 inch.
- 4 doz. bandages, 3 inch.
- 4 doz. bandages, 2 inch.
- 2 doz. bandages, 1 inch.
- 12 sheets cotton wadding.
- 25 yds. muslin for slings.
- 1 roll adhesive plaster, 5 yds. by 1 ft.
- 2 gross safety pins—large.
- 2 gross safety pins—medium.
- 2 gross safety pins—small.
- 2 ft. rubber dam.
- 1 lb. zinc ointment.
- 1 lb. boric ointment.
- 4 oz. ichthyol ointment—(10%)
- 4 oz. chlorcosane (solvent for dichlor. "T.")
- 10 oz. "hychlorite" (concentrated Dakin's).
- 8 oz. flexible collodion.
- 8 oz. Balsam of Peru.
- 16 oz. tr. green soap.
- 1 gal. denatured alcohol.
- 1 gal. benzine (for removing adhesive).
- 1 lb. boric acid crystals.
- 1 oz. novocaine.
- 1 oz. carbolic acid.
- 3 oz. Squibb's impalpable powder.
- 4 oz. picric acid crystals.
- 1 oz. dichloramin "T."
- 2 lbs. plain talcum powder.
- 6 tubes iodoform gauze— $\frac{1}{2}$ inch width.
- 2 large tubes ethyl chloride.
- 1 Jack-knife.
- 1 box tongue depressors.
- 3 kidney basins—8 inch.
- 3 kidney basins 9 $\frac{3}{8}$ inch.
- 3 round basins—13 $\frac{1}{2}$ inch.
- 1 Erlenmeyer flask—200 cc.
- 1 one gal. jar (for bandages).
- 1 one qt. jar (for rubber dam).
- 1 pkg. splintwood.
- 1 covered tray (for sterile instruments).
- 2 one gal. bottles.
- 2 one pt. bottles.
- 6 eight oz. bottles.
- 4 soft rubber catheters, sizes 12 to 18, for irrigating wounds.

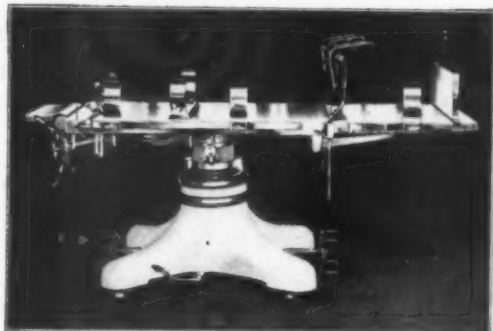
Although, as stated above, no detailed list of instruments and sutures is given, it may be worth while to mention the value of two devices which, although used extensively, have not yet entirely supplanted the older methods. These are (a) knives with detachable blades which ensure an ever-ready keen edge at a minimum cost; and (b) metal skin-clips which are preferable in minor surface lesions—because (1) they lessen the chance of stitch abscess since they go only a short distance into the skin instead of through it; (2) they leave a smaller scar

HOSPITAL FURNITURE OF QUALITY

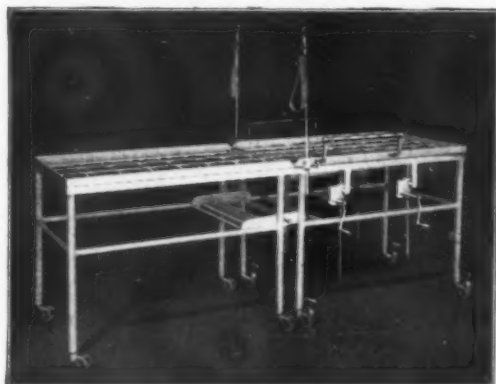
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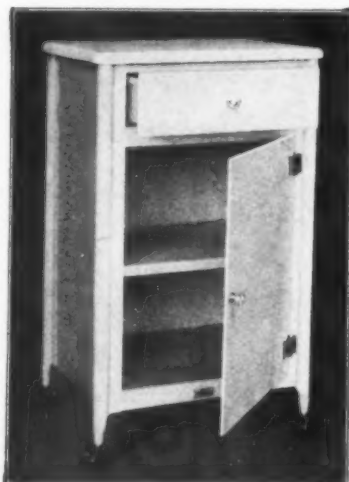
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The Ohio Mobile Pedestal Operating Table No. 2 with the Lateral Tilting Positions is indispensable to every Hospital.

It inclines the patient toward the surgeon so that better and quicker work can be done and the surgeon relieved of the major part of the physical strain of the operation.

All lateral controls at base of table are foot operated by anaesthetist.

Table automatically locks in all positions.

The —FOSCO— Visible Clinical Chart Desks and Racks Are Accurate—Quick—Noiseless

All name plates are visible—seen at a glance—and all opportunity for mistakes and delays eliminated.

The new FOSCO Aluminum Chart Holders used in these racks are easy to open and close, and are absolutely noiseless. A great improvement over old type.

Desk made in tubular construction. Polished plate glass top. Commodious drawer. 3" felt casters.



C. A. 7 Visible Clinical Chart Desk. Holds 20 Special Noiseless Book Form Chart Holders. Desk size 32 in. high, 20½ in. wide, 20 in. deep.

The —FOSCO— Delivery Bed

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The gravity device locking the two sections can be raised in a moments time and the lower section instantly moved out of the way.

Pull handles of unique and efficient design.

The C. A. 3634 Bedside Table

is made in our new tubular construction. Commodious drawer on special easy working slides.

Two large compartments beneath drawer. Standard glass knobs, nickel plated hinges, 2" metal casters.

Felt or rubber tired casters furnished at an additional price.

Electro welded construction.

White Enamel, Gray, Ivory, or FOSCO Mottled Gray are regular finishes.

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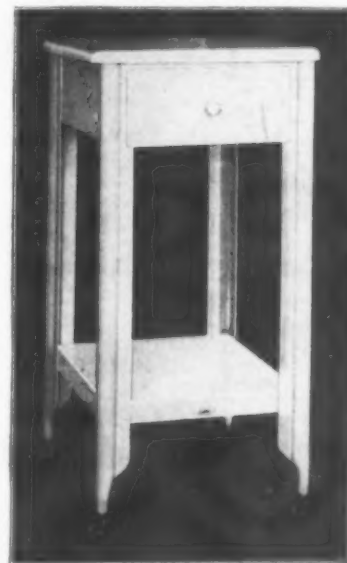
The C. A. 3684 Bedside Table

is made in our new tubular construction. Commodious drawer on special easy working slides.

Enameled steel shelf. 2" metal casters. Electro welded construction.

White Enamel, Gray, Ivory, or FOSCO Mottled Gray are regular finishes.

Wood finishes furnished at an additional price.



C. A. 3684 Bedside and Instrument Table With Porcelain Steel Top. 32 in. high, 20 in. wide, 16 in. deep.

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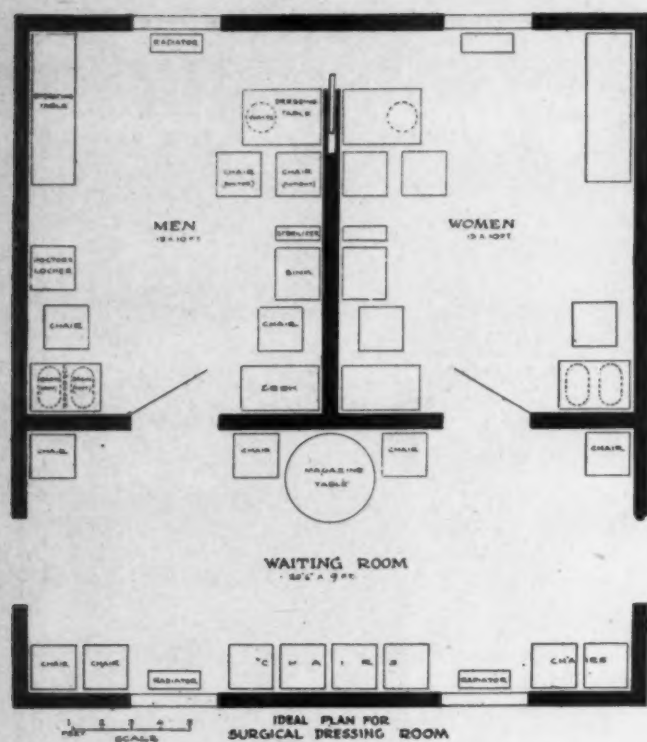
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and so are especially preferable for wounds of the face and neck; and (3) their application requires a minimum amount of time.

WHO ARE DISPENSARY PATIENTS?

(Continued from page 582)

student in the clinic as well as to the patient. The amount of energy and time expended in bringing back a patient for a second or third visit after the initial one is well invested.

Readmissions

Of the five hundred patients, 8 per cent had been admitted to the dispensary previously, and 12 per cent were subsequently admitted, after several months for other conditions than those for which they received treatment in January, 1923. The clinic departments having the largest number of previous and subsequent admissions were gynecology and neurology. These patients, for the most part, came in because of new phases of an old standing complaint, 22 per cent of them having been in previously, and 33 per cent coming in for subsequent treatment.

Previous admissions showed 13 per cent satisfactory, and 13 per cent probably satisfactory, as compared with 18 per cent satisfactory, and 27 per cent probably satisfactory, among the five hundred January 1923 admissions, and 13 per cent satisfactory, and 21 per cent probably satisfactory among the subsequent admissions.

Conclusions

(1) Only a very small percentage in this analysis, less than one per cent of those asking for dispensary service, cannot be considered as legitimate dispensary patients. In other words, all but a very few who seek this service are unable to pay the regular rates for private medical service. While it is possible that this percentage is larger than indicated, even if it were two or three times as much, we could still say that nearly all of those seeking dis-

pensary service come where service is free, or the fees nominal, or else they must go without medical service.

(2) In spite of all shortcomings, the service is shown to be generally satisfactory. It is quite evident that a great amount of the work done is acceptable, both from the standpoint of the patient and from the standpoint of the staff. This is best shown by the fact that the demands for service are constantly increasing. If this service was not reasonably good, there would not have been a fifty per cent increase in new patients in the last three years. While the tabulations show that nearly half of the patients made only one visit, it must not be assumed that they were dissatisfied with the service, as many came for service requiring but one visit, such as vaccination, dressing of minor injuries, or infections, and routine physical examinations of various kinds.

(3) The constant and increasing demand for medical dispensary service seems to indicate the necessity for such service. All social relief agencies have found that sickness is the greatest and most fundamental cause of dependency. It seems reasonable to suppose that any service which helps to remove this great social handicap is worth while from a public policy standpoint.

The value of such "stock-taking" studies is not wholly academic, but is a definite and practical one, with an immediate application to the administration and solution of the problems of a functioning institution, such as the Central Free Dispensary, to which three or four hundred new patients are admitted each week. It has been thought that publication of a summary of this study might be welcomed by those concerned with the administration of clinics as an example of methods of appraising one's own work.

PROTECTING THE HOSPITAL AGAINST THE X-RAY FILM PERIL

(Continued from page 570)

ference in the rate of combustion of cellulose acetate and ordinary paper stock. To prove this a number of tests were made by burning cellulose acetate x-ray negatives in envelopes and also the same quantity of paper of the same weight in similar envelopes under similar conditions. It was found that the time of burning was slightly longer in the case of the acetate films than in the case of the paper and that the decomposition products given off were practically the same chemically as those of the paper. Nitrate films once ignited supply their own oxygen necessary for decomposition, while in the case of cellulose acetate films outside oxygen must be supplied as in the case of burning paper. The cellulose acetate film has been rated by the Underwriters' Laboratories as of somewhat less fire risk than ordinary newspaper.

If x-ray work is carried on in your hospital a checkup of the storage and care of films should be made. The fire prevention department of this magazine shall be glad to cooperate with you in answering your questions on fire prevention and fire protection. Our engineers will gladly make a survey of your hospital property, pointing out in detail the existing fire hazards.

The United Hospital Fund of New York announces its annual appeal for support of the free service given to the sick poor of the city by the fifty-seven non-municipal hospitals which are members of the fund. The executive committee of the fund announces the appointment of Minott A. Osborn, formerly acting secretary, Yale University, as director of the fund.


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OCCUPATIONAL THERAPY IN THE TUBERCULOSIS SANATORIUM

BY BEATRICE E. LINDBERG, DIRECTOR OF OCCUPATIONAL THERAPY, MINNESOTA ADVISORY COMMISSION, ST. PAUL,
MINN.

FOR many years progressive physicians have recognized that the mental is often the controlling factor in the treatment of disease and more especially so when the period of convalescence is long. It took the war with its afflictions both of mind and body to prove to the world that the mental is the major consideration with unlimited curative value, and this resulted in the introduction of occupational therapy into government hospitals. Here was demonstrated to the world that a contented mind is a large factor in curing the sick body.

Leading public and private hospitals soon followed the example of government hospitals. One of the last groups of institutions to take up these curative occupations was the sanatoriums for the treatment of people suffering with tuberculosis. The main reason being, undoubtedly, the emphasis placed upon rest in curative measures. It is conceded, however, by authorities on tuberculosis, that rest of the body is still of the utmost importance, but that rest of the mind has to be considered. Also there is a time in the treatment of tuberculosis when graduated exercise becomes a great factor in the cure.

Minnesota First in Statewide Project

About five years ago, Dr. Robinson Bosworth, executive secretary of the Minnesota Advisory Commission, conceived the idea that occupational therapy be given under the jurisdiction of the commission in the state sanatorium and fourteen county sanatoriums throughout the state where the treatment for tuberculosis is given. Thus Minnesota was the first state to try out the work as a statewide project. Several states have followed the lead of Minnesota in organizing a state-wide field for work with the tuberculous.

The need for this work had been long felt and the problem was to provide a way of giving instruction and help to the patients of the smaller sanatoriums in which it would be possible to place a paid worker and also to have supervision of the department in the larger sanatoriums.

Work Started by State Commission

A director of occupational therapy was employed by the Minnesota Advisory Commission and each sanatorium visited and work organized. The larger sanatoriums are the State Sanatorium at Ah-gwah-ching, Napewing, St.

Louis County, Duluth; Glen Lake, Hennepin County, Minneapolis; Pavilion, Ramsey County, St. Paul. In each of these sanatoriums there is excellent space set aside for workshops, well-equipped for all kinds of occupational therapy. In the smaller sanatoriums which are located at Battle Lake, Cannon Falls, Crookston, Puposky, Lake Park, Wabasha, Granite Falls, Worthington, Thief River Falls, Wadina and Deerwood patients showing a special aptitude for the work are left in charge under the supervision of the office secretary. In some instances, more than one patient has charge, each taking care of different lines of work not only dividing up the responsibility but sharing the opportunity of leadership. On the successive visits of the director special help is given these instructors. We have been especially fortunate in a succession of good leaders.

There are 1,800 beds for the care of the tuberculous in Minnesota and from fifty to seventy-five per cent of these patients have been able to avail themselves of the opportunity afforded them by the occupational therapy department.

Patients are only allowed to work by a permit from the physician in charge. This permit designates how much time the patient is allowed for this form of exercise and the kind of work best suited to his particular case. The time allowed may be from a few minutes to two or three hours. As with any other therapeutic agent, the good or harm that occupation may have depends upon the dose given. It is a powerful drug and should be well administered. The ambulatory patients come to the shops for their instruction and work is taken to the bed patients.

Our shops are called "shops of production," not *consumption*. This slogan was adopted by the patients themselves. It originated as a bit of banter between two patients at the State Sanatorium at Ah-gwah-ching, Minn. One day as Dr. P. M. Hall, the superintendent, was watching a group of patients working, one of the patients made the remark that the basket he was making was the first thing his hand had ever produced. Another patient immediately reminded him that our shops were a place of production, not consumption.

The work of the department may be divided into three groups, purely occupational, sustained occupational, which may be remunerative, and occupational work which will lead to the reeducation of an individual for work after

The Hospital and Acidosis

THE community health protection given by the hospital and its out-patient department, may well include education of the public toward the prevention as well as the correction of acidosis.

Acidosis is a forerunner of so many serious organic troubles that its correction or prevention comes naturally within the field of the health protection service which today is generally accepted as a part of the hospital's function. Furthermore acidosis becomes more particularly a problem of the hospital because so frequently the condition is recognized for the first time when the patient enters the institution for diagnosis and treatment of some other ailment.

Whatever may be the underlying cause the simple corrective treatment here discussed should be considered by those responsible for the treatment and care of patients in hospitals and similar institutions.

The increasing use of sodium bicarbonate by the public to control "acid stom-

ach" should be considered in this connection. Only a part of the bicarbonate is effective and that portion which produces carbon dioxide may be seriously detrimental.

Phillips' Milk of Magnesia being free from carbonates does not distend the stomach nor cause flatulence of the lower intestinal tract. Its antacid action is pronounced. A given quantity of Phillips' Milk of Magnesia neutralizes almost three times as much acid as a saturated solution of sodium bicarbonate and nearly fifty times as much as lime water. Further it has the additional merit of being laxative, a quality of importance here since constipation is so frequently the underlying cause of hyperacidity.

DOSAGE

The usual dose of Phillips' Milk of Magnesia, as an antacid, ranges from one teaspoonful (4 c. c.) to one tablespoonful (16 c. c.). This amount should be mixed with an equal portion of cold water or milk and given half an hour after meals.

For its laxative effect, the adult dose is one to two fluid ounces (30 to 60 c. c.). The aperient action may be facilitated by giving the juice of lemon, lime or orange, half an hour thereafter.

PHILLIPS' Milk of Magnesia

CAUTION. Beware of imitations of Phillips' Milk of Magnesia. The genuine product bears our registered trade-mark. Kindly prescribe in original 4-ounce (25c bottles) and 12-ounce (50c bottles) obtainable from druggists everywhere.

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the sanatorium days are over.

In the first group, the purely occupational, the results have little, if any, practical value beyond the immediate purpose they serve nor are they intended to have any other purpose. Cutting, tearing and folding paper, solving puzzles and care work are used as a pastime.

The second group consists of the making of something worth while, the making of which will sustain the interest and occupy the mind for successive sessions as weaving a rug, making a basket or lamp, knotting a landing net, molding beads, making toys and knitting a scarf.

The kinds of work that have been found to hold the attention and interest best are the creative crafts. A real craft is creative. Taking a piece of cloth and making it up into a bag is not a craft but taking threads and weaving them into a piece of fabric is a real craft. These crafts that are possible with the patients are weaving and molding. In weaving, whatever the material, whether it be carpet rags for a rug, linen thread from which to make cloth, reed or rattan for baskets, beads for necklaces or silver wire for a chain, all are built on the fundamental principle of warp and woof for weaving. In molding, the making of beads either of sealing wax or permadella, pottery and cement work, the joys of construction exceeds that of the less creative crafts and result, with a little time and patience, in a work of art.

For variety, other crafts which are not strictly speaking so creative but gratifying in the making of something both useful and artistic is tooled leather, wood carving, whittling, enameling, toys, poster printing, bead work, and many forms of needlework.

Variety of Work Prevents Monotony

Because of the great variety in these crafts they do not become automatic as knitting and tatting. The mind must be concentrated upon the work which is a great advantage because when work is done by the subconscious mind the conscious mind can be doing most what we do not want it to do and that is dwelling on the personal equation.

The object or article made is not the end in view, but the more useful and beautiful it is the better it holds the attention and the more gratifying the work is to the maker. Many large articles have been made as floor lamps, breakfast sets consisting of a table and chairs, writing desks and leather handbags.

Classes have been conducted in Americanization and a great many patients have learned to write and read the English language while taking the cure. Materials for occupational work are purchased by the institution and patients pay for the cost of the materials used in an article they make. If, on the other hand, this paying for material is a hardship or would deprive the patient of the benefit of the work the following arrangements have been carried out. A patient may make two similar articles one of which he may keep, the other to become the property of the institution to be disposed of for at least twice the original cost. Sales are conducted and orders taken to help keep up the enthusiasm. The department is self-supporting as far as the materials are concerned. Each patient can, by this plan of making two articles and by the privilege of selling, make his individual work self-supporting. It is not done to make the patient's living but to keep the work living.

As a patient improves in health and strength his energies should be turned to ways and means to earn a living after he is out of the sanatorium, especially where a change in occupation is necessary. This brings us to

the third group or classification of occupational work to reeducating the patient. The means are at hand under the state rehabilitation department and departments have been conducted in our larger institutions and have proved very satisfactory. This department has provided correspondence courses which many of the patients have taken. It is desirable to keep some of the patients in the environment of the cure after the case is arrested, some can find work in the institution but others should be re-educated so that they may go out as an asset and not a liability to society. Many patients leave our sanatoriums and have successive break downs.

Aims to Prolong Patients' Stay

In organizing this work, one of the main objects has been to give patients something to do that will lengthen their stay in the sanatorium. This can best be done by making the idle hours pass more quickly and pleasantly. With few exceptions patients get restless and wish to return to their homes sooner than they should. Monotony is one of the causes. A good antidote for monotony is occupation. The length of stay has been increased fifty per cent and undoubtedly occupational therapy deserves some of the credit.

We are now working on a project in the form of an industrial shop as the center of a colony. The colony provides a place to house patients who no longer need hospital care but should be taken care of while completing their reeducation in the shop, and also makes a place where a man or woman who is able do a few hours of work a day could be employed and remunerated for work done.

Successive visits of the director have been most encouraging and gratifying as the work has been carried on so well by those in charge. On these visits new lines of work are introduced and new enthusiasm aroused. A very hearty welcome is always waiting for the director and she does not have to drum up business, as it is always waiting for her. In five years no physician has made the complaint that the work has harmed any patient. Innumerable stories and testimonials both from physicians and patients could be cited as to the beneficial results obtained by the patients from having something to do to occupy their minds.

Patients Not Overtaxed

Work of the patients has been exhibited each year at the annual meetings of the American Occupational Therapy Association, the National Tuberculosis Association, Mississippi Valley Conference at the Minnesota State Fair and at local county fairs. The publicity given the sanatoriums by these exhibits is worth considering. People or the public have very generous ideas of the conditions existing in the sanatoriums. Because of the long periods of convalescence people think the patients are spending long, tedious and endless days. Conditions like these are impossible after a department of occupational therapy is established. A remark often heard from the patients is that the days are not long enough to do all the things they would like to do. The atmosphere of the joy of being occupied is felt throughout the institution. This influences on the patient himself is more important. This means of sustaining the patient's interest only in things from the outside world but developing in himself a desire to improve mentally as well as physically and the desire to go back and take his place in the world a useful citizen.

(For News Items see page 598)

Chlorine for Respiratory Infections

THERE is convincing evidence that the chlorine treatment described by Vedder & Sawyer (Journal American Medical Association, Vol. 82, pages 764-766) is effective provided the chlorine concentration is constantly maintained at 0.015 milligrams per liter.

The problem is not to measure the amount of chlorine introduced initially into a room to give the concentration required. The real problem is to maintain the proper concentration to make sure that the patient is receiving the correct amount during the full hour period.

The equipment offered by this company is based upon our experience in developing the apparatus used at Edgewood Arsenal in the original research investigations and meets with the approval of the originators since it insures the administration of the treatment precisely as worked out by them.

WRITE FOR TECHNICAL PUBLICATION NO. 61
GIVING FULL DETAILS

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NEW JERSEY



MEETINGS, CONVENTIONS AND CONFERENCES

SASKATCHEWAN HOSPITAL ASSOCIATION HOLDS SIXTH ANNUAL MEETING

THE sixth annual convention of the Saskatchewan Hospital Association was held in the City Hall, Regina, Sask., on Wednesday and Thursday, September 3 and 4, 1924. Forty-five delegates registered, and in addition several guests and representatives from the department of public health of the province. The delegates represented twenty-five hospitals.

An interesting paper was read by Dr. F. C. Middleton, the department of public health, dealing with the work undertaken by the hospitals in the province, and showing that in all departments, the numbers availing themselves of hospitals for care and treatment were on the increase and the mortality rate consequently decreasing. The report further showed that various new phases of work common to hospitals were being attempted with success. Charts and statistics which were on hand for the use of delegates proved informative.

The last paper of the morning session was read by Mr. M. N. Dawson, laundry manager, Regina General Hospital, who gave his opinion of how hospital linen could best be handled and conserved by proper washing methods. This paper provoked considerable discussion and Mr. Dawson had many questions showered upon him.

The formal opening of the convention took place at 2:15 p. m. with invocation by Mayor Burton, of Regina, and response by Mr. Howard Jones, Lloydminster Hospital, Lloydminster, Sask.

Rural Problem Discussed

An address "The Law as it Relates to Rural Municipalities and Hospitals," by Mr. G. F. Blair, city solicitor, Regina, dealt with a subject of present day interest in the province. The discussion which followed brought forth some points troublesome to hospital administrators. The round table on nursing problems was led by Sister Katherine, Holy Family Hospital, Prince Albert. No evening session had been planned but the time was spent by the various committees appointed to draft resolutions, alterations to by-laws etc.

The September 4 session was given over to the various reports of committees. A round table on administration problems was conducted by Dr. M. R. Bow, superintendent, Regina General Hospital, who took up the remainder of the morning session. At the end of the session delegates motored to the Regina General Hospital where they were the guests of the board of governors of that institution at lunch, and were also shown round the hospital.

The opening address of the afternoon session was, "Im-

pressions Made at the Medical Meeting, League of Nations," by Dr. M. M. Seymour, deputy minister of public health, Regina, Sask. Dr. Seymour emphasized clearly the work which the province was attempting, and the assistance which they at all times were willing to give to any hospital or community requiring assistance. He made mention of the erection of several union hospitals in various parts of the province and stated that they were filling a very great need. He intimated that very shortly a supply of the new anti-toxin for scarlet fever would be on hand and that hospitals could secure this for their needs.

Round Table on Administration

Dr. M. T. MacEachern, president, American Hospital Association, conducted a round table on hospital administration. In this discussion some very helpful remedies and suggestions were brought out.

A dinner was held at night in the restaurant of the Regina Trading Co., when the association had as their guests all the delegates, Dr. MacEachern, Dr. M. M. Seymour, and some of the medical men of Regina. Mr. G. E. Patterson, president, Saskatchewan Hospital Association, was chairman.

Dr. MacEachern Talks on A. C. of S. Work

At the banquet Dr. MacEachern pointed out in detail the work of the American College of Surgeons in its survey of all hospitals, and the work which was being done in preparing approved lists of hospitals and the benefits to be derived from being on the approved list.

The following resolutions were placed before the association and the secretary instructed to forward them to the government for attention:

(1) *Whereas*, after mature consideration it is the consensus of opinion that the recent order in council requiring nurses in training to take a three months course at the sanatorium prior to graduation is impracticable and, if enforced, will be most damaging to the interests of the hospitals concerned. Therefore, be it resolved that this association respectfully requests that this order in council be not enforced.

(2) *Whereas* the actual service required for indigent cases often demands the use of operating room, x-ray, etc., in addition to the usual bed and nursing service, be it resolved that we request that the government further amend section 198 and 199 of the rural municipality act by adding after the words "\$2.50 per day"—"Ward fees,

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Literature for Hospitals and Physicians

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and fees for necessary extras as drugs, operating room fees and x-ray fees."

(3) *Whereas*, there are a number of patients in the hospitals who are aged, infirm or otherwise who are not proper hospital cases. Therefore be it resolved that the department of public health be requested to remedy this situation by taking such action as will bring the required pressure to bear that adequate provision be made for this class of people by the province.

Alterations suggested to by-laws of association were left in the hands of a committee.

The next convention will be held in Saskatoon, Sask., the time and place to be left in the hands of the executive committee.

The following officers for the ensuing year were appointed: Hon. president, Hon. J. M. Uhrich, M.D., minister of public health; president, Mr. G. E. Patterson, Regina; first vice president, Mr. Howard Jones, Lloydminster; second vice president, Mr. H. W. Cookson, Weyburn; third vice president, Mr. A. Caswell, Maple Creek; secretary-treasurer, Mr. T. T. Murray, Saskatoon.

ONTARIO HOSPITAL ASSOCIATION HOLDS FIRST ANNUAL MEETING IN TORONTO

THE Ontario Hospital Association, organized a year ago for the purpose of establishing cooperative hospital work throughout the province, held its first annual convention in Toronto Thursday and Friday, October 2 and 3. Between eighty and ninety per cent of the hospitals in Ontario were represented at the meeting. While the association is, naturally, a provincial one, it assumed international proportions last week when it was discovered that among the many prominent hospital workers present were visitors from so far away as Pasadena, Cal. Vancouver, B. C., was also represented.

Variety of Subject Discussed

Among the subjects tabulated for discussion were: standardization of hospitals, record systems for nurses, training schools, cooperative buying, to what extent do hospitals in Ontario keep a per capita per diem cost?, how may municipalities be compelled to pay for indigent patients?, to what extent are patients charged for drugs, do public ward patients pay full value?, compilation of annual government returns, uniformity of tariff, how to raise money for hospital deficits, how is control kept on the use of supplies in hospitals?, number of graduate nurses necessary in hospitals from forty-five to one hundred beds?, what do medical men think of ten-hour day for private nurses? This list of topics is the result of a questionnaire sent out by the secretary of the association, Dr. F. W. Routley some time before the date set for the convention.

Dr. Mowbray Hamilton, a champion of standardization, read a paper in which he outlined methods by which the efficiency of all hospitals might be increased. Among other means he suggested regular meetings of the medical staff, consideration of ethical standards and an improved system of record keeping. Miss G. L. Rowan, R.N., superintendent, Grace Hospital, Toronto, told of the increased efficiency which her institution has experienced as a result of the adoption of standardization plans.

Progress in Standardization Work

This subject was treated by Mr. Aikens, department of hospitals and prisons, who told of the many difficulties encountered in past years in securing reliable data concerning hospital financing, and explained that it is the duty of the government to see that these institutions do not fall below a given standard. A new form has recently been drafted which it is expected will replace the one at present in use by the hospitals and this, it is hoped, will prove more workable. When filled in and returned it will indicate, apart from the annual state-

ment of receipts and expenditures, the financial standing of each institution.

This subject was also handled by Miss Jean I. Gunn, superintendent of nurses, Toronto General Hospital, Toronto, who exhibited a number of charts illustrating the method used in keeping records in her hospital.

Following Miss Gunn's address, those interested witnessed a demonstration of blood transfusion conducted by Dr. G. Harvey Agnew, Toronto Western Hospital staff. A case of pernicious anemia was treated by the Unger method and Dr. Agnew explained the operation step by step, giving a comprehensive exposition of the benefits to be derived by the use of proper methods and apparatus.

Private Patient Rates Exorbitant

In his paper on "Uniformity of Tariff," Dr. F. W. Routley, director of the Ontario division of the Canadian Red Cross, maintained that under present conditions the rate paid by semi-private and private patients in hospitals is out of all proportion to the rates paid in the public wards. It was his contention that these patients pay for the upkeep of the public wards and for that reason he advocated that municipalities pay the actual cost of maintenance of public ward patients.

Budget System Advocated

Cooperative buying was another subject in which much interest was evinced. Mr. Swanson, purchasing agent, Christie Street Hospital, Toronto, and Mr. Parr, purchasing agent, Toronto General Hospital, dealt with it and as a result of their papers it is possible that a central purchasing bureau will be established by the hospitals in the province. According to the figures submitted, a saving of from ten to fifty per cent may be effected by cooperative buying.

Miss McKee's paper on the subject of hospital dietetics aroused a lively discussion participated in by Miss Margaret Tait, Belleville Hospital, Belleville, and Dr. J. J. Walters of Kitchener. The general opinion was that a hospital should have no deficits. To avoid this a budget system was advocated whereby expenses might be apportioned in advance. Dr. Walters was very firm in his opinion that municipalities should pay hospital costs and stated that it had been his experience that they would do this, if properly approached. He considers that the day has gone by for hospitals to be run by boards and trust and that money for the care of the sick should be taken out of the taxes.

One of the pleasant social features of the convention was a luncheon held in the Yellow Room of the King

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Supports where Support is needed. — Bends where the foot bends

Edward Hotel Friday October 3, at which Dr. T. C. Routley, general secretary, Ontario Medical Association, spoke on the value of organization.

The first topic considered at the Friday afternoon meeting was dealt with by Mr. Govan, inspector of hospitals. Mr. Govan stated that it had been his experience that accurate per capita costs are not being kept at all. He hopes, at an early date, to introduce a practical plan by which the hospitals may be able to check and keep down their per capita costs. Mr. C. J. Decker, superintendent, Toronto General Hospital, Toronto, explained with the help of charts, how a systematic record may be kept of all supplies used in hospitals, whether large or small. This question proved to be another of general concern to many of the hospital executives. This is a real problem. Mr. G. G. Moncrieff, chairman, Charlotte Eleanor Englehart Hospital, Petrolia, outlined the statutes governing fees paid by municipalities to hospitals for

indigent patients. Mr. A. C. Galbraith, superintendent, Toronto Western Hospital, Toronto, explained the practice of his institution in this respect.

Approves Ten-Hour Day for Nurses

Miss Dickson, superintendent, Weston Sanatorium, Weston, in dealing with this question, expressed the opinion that one nurse should be able to care for five patients while on day duty and ten at night. This subject was treated in a paper by Dr. Herbert Bruce, F.R.C.S., read in his absence by Dr. Routley. Dr. Bruce approved the ten-hour day for private nurses and suggested that they take their recreational hours from 4 until 6 p. m.

The two-day session ended with a visit to the Toronto General Hospital, Toronto, where a demonstration in the department of dietetics was conducted by Miss M. Porter. The x-ray department, in charge of Dr. Richards, was also visited.

A. C. OF S. ANNUAL HOSPITAL CONFERENCE FEATURES PRACTICAL DEMONSTRATIONS

THE annual hospital conference of the clinical congress of American College of Surgeons was held in New York, N. Y., at the Waldorf-Astoria Hotel, October 20-24. Hospital executives, staff members and nurses from all parts of the United States and Canada were in attendance.

At the opening of the meeting, Dr. Franklin H. Martin, director general, American College of Surgeons, Chicago, Ill., presented the list of hospitals approved by the American College of Surgeons up to October 1, 1924, an announcement of which was made in our November issue.

The cooperation of the New York hospitals, the Committee on Dispensary Development and the Hospital Information Bureau, contributed much to the success of the conference. The latter two, the Committee on Dispensary Development and the Hospital Information Bureau both of the United Hospital Fund of New York, maintained an information bureau at the Academy of Medicine building, in addition to hospital and clinic exhibit. The hospitals of New York City afforded every opportunity to see demonstrated all the modern principles in construction, equipment, organization and management. The hospital people were most cooperative in showing the visiting delegates and others through their institutions.

Tours on Brooklyn Hospital Day

Brooklyn Hospital Day, organized by the Council of Brooklyn hospitals, was a unique and interesting feature of the conference. The council which embraces twenty-four institutions in that city, took complete charge of the arrangements and program for the day. Cars for some four hundred people were provided, and each car was in charge of a guide and accompanied by a traffic officer so as to secure the right of way as far as possible, in order to save time. Three groups were formed, each visiting eight hospitals during the day. At the various hospitals visited, the superintendent and staff were ready to demonstrate the special features of that particular institution. The hospital people were guests of the council at luncheon in Brooklyn, after which they continued their tour and were returned by their hosts to the headquarters of the conference.

The large educational exhibit pertaining to hospital standardization, among other features, included the ac-

tivities of the hospital information and service department, and a continuous demonstration of filing and cross-indexing of records.

The papers and discussions of the conference, which were all of a practical nature, dealt chiefly with standards for clinical departments in hospitals such as surgery, medicine, ophthalmology and oto-laryngology, obstetrics and urology, as well as diagnostic and therapeutic departments such as clinical laboratory, x-ray and physiotherapy. It has been felt by the college of surgeons for some time that definite practical minimum standards of this kind should be developed as guiding information for hospitals in building up their clinical, diagnostic and therapeutic services or departments.

Authoritative information on the appraising of case records was submitted by three speakers of extensive experience in this work. Their presentations emphasized in a most comprehensive manner the need of having records of good quality and how such records may be determined.

Hospital Staff Meeting Demonstrated

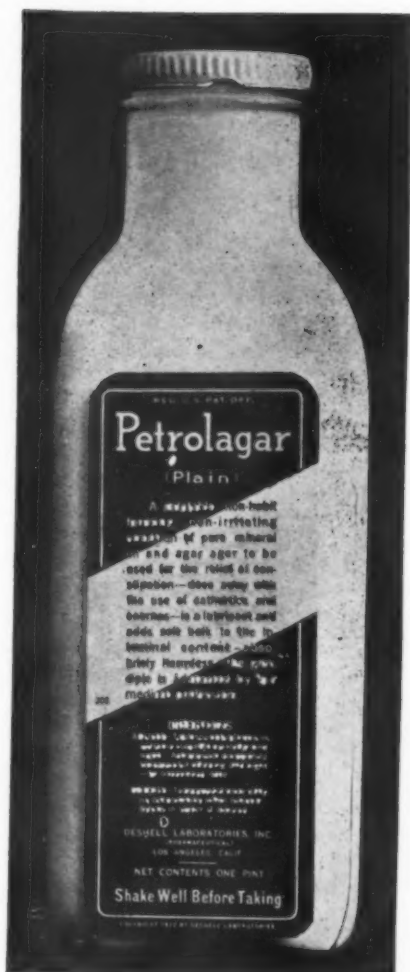
A novel demonstration given by some seventy members of St. Catherine's and Greenpoint Hospitals, Brooklyn, under the direction of Dr. Frank D. Jennings, was one of the high lights of the conference. It was a complete demonstration of the following features pertaining to the staff conference:

WHY?

1. It is paramount as a staff stimulus.
2. It is the most valuable single factor in producing good records.
3. It is one of the most efficient means of post-graduate medical education.
4. It provides unlimited opportunity for staff review of current work.
5. It is a deterrent to unnecessary surgery.
6. It is a check on the incompetent, a boon to the competent.
7. It lifts a hospital and its staff above the level of mediocrity.

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PETROLAGAR is offered as a solution of the problem of keeping the bowel open for two or three weeks after the operation in an effective manner, without the creation of the cathartic habit.

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HOW?

1. Best managed through and by a staff conference committee.
2. Regularity and punctuality in holding the meetings.
3. Essential and primary recognition of the fact that staff conferences are not clinical or county society meetings, but are designed for staff review of staff work.
4. Must be impartial, just, fearless, dignified.
5. Agenda should always include mortality and may include morbidity.
6. The abstracting of case reports and limiting them to give minutes is highly advantageous.
7. Every case report should have a record critic who closes the discussion on the case.

The demonstration was preceded by an interesting introductory paper showing some of the difficulties encountered in staff conference today, and was followed by a splendid review of some fifty meetings of this kind that the essayist had personally attended with a view to standardizing procedure in this connection. This demonstration was of value, as it clearly set forth the frankness, thoroughness and interest which should characterize every meeting of this kind if it is to be of real value.

The entire conference was of practical value, as every opportunity was given for demonstration of the subjects under discussion.

The following officers for 1925: president, Dr. Charles H. Mayo, Rochester, Minn.; president-elect, Dr. Rudolph Matas, New Orleans, La.; first vice-president, Dr. Eugene Hillhouse Pool, New York, N. Y.; second vice-president, Dr. John Sinclair McEachern, Calgary, Ala.; treasurer, Dr. A. J. Ochsner, Chicago, Ill.; director-general, Dr. Franklin H. Martin, Chicago, Ill. The associate directors are Dr. Allan Craig, Dr. M. T. MacEachern, and Dr. E. I. Salisbury, all of Chicago, Ill.

AMERICAN PUBLIC HEALTH ASSOCIATION HOLDS FIFTY-THIRD ANNUAL MEETING

The hospital's role in community health was touched upon in various section meetings which made up the fifty-third annual conference of the American Public Health Association held at Detroit, Mich., October 20-23, 1924. As in former meetings, the conference was grouped under the following sections: public health administration; food and drugs; sanitary engineering; laboratory; child hygiene; vital statistics; public health nursing and industrial hygiene.

A number of significant resolutions of importance from the standpoint of public health were passed at the conference. Some of these were the endorsing of the pasteurization of municipal milk supplies; the suggestion that the schools instruct in regard to dangers of carbon monoxid poisoning; and the call for federal and state legislation providing for warning labels on packages containing dangerous alkalies. The movement for periodic health examinations was also promoted.

One of the interesting features of the opening session was a survey of the health work of the League of Nations presented by Dr. Thorwald Madsen, Copenhagen, Denmark, chairman of the health committee of the league, who drew attention to the extraordinary accomplishments of the league.

The sessions on public health nursing were of interest to hospitals in that they dwelt upon the defects of present training in this field. In regard to the requisites for this

work, the preference was stated for a full year of academic study to follow two years and four months of hospital training. It was brought out in the discussions that the real defect in nurse training is the lack of facilities in schools of nursing for contacts with public health work prior to graduation. It was felt that only the university schools of nursing are alive to the opportunities of public health nursing and that hospitals training schools lag in this respect. It was advocated that the desirable qualifications for the public health nurse for 1925 be enforced now so that they may become minimum standards in 1930.

The report of the committee on cancer control outlined a possible line of study of these problems for the use of state or district health officials. The report pointed out that cancer control involves direct hospital visitation as well as visits to surgical clinics for study of methods of control.

Officers elected for the coming year are Dr. Henry Vaughan, health commissioner, Detroit, Mich., president; Dr. Oscar Dowling, New Orleans, first vice-president; Dr. D. A. McClenahan, Norfolk, Va., second vice-president; Dr. P. S. Schenck, New York, N. Y., third vice-president; and Dr. L. I. Dublin, New York, N. Y., treasurer.

OCCUPATIONAL THERAPY NEWS ITEMS

An exhibit of occupational therapy products from the state and county hospitals, almshouses and schools for defectives and blind was held at the annual meeting of the Poor Board Association of Pennsylvania, held recently at Washington, Pa.

Since the Buffalo meetings, twenty candidates for occupational therapy positions have been named from the headquarters' office.

CALIFORNIA FORMS O. T. ASSOCIATION

The California State Association of Occupational Therapy held its first annual meeting in San Francisco, Cal., September 20. There was a business meeting for active members only, with election of officers and board of management for the ensuing year. The result of the election was as follows: Miss Olivia Lee Tiedebohl, Los Angeles, president; Miss Helen Seeley, Berkeley, vice president; Miss Louise Cadwalader, Berkeley, executive secretary and treasurer.

The large attendance at the meeting was a great encouragement to the organizers and much interest was displayed in the exhibition of work made by patients in the following hospitals: Lane Stanford Hospital, San Francisco; U. S. Marine Hospital, San Francisco; U. S. Naval Hospital, Mare Island; University of California Hospital, San Francisco; San Francisco City and County Hospital, San Francisco; U. S. Veterans' Hospital No. 64, Camp Kearny; U. S. Veterans' Hospital No. 24, Palo Alto; Arroya Sanatorium, Livermore; Industrial Extension for the Handicapped, Los Angeles.

FIRST SET OF BIBLIOGRAPHIES COMPLETED

The Hospital Library and Service Bureau announces the completion of its bibliographies on occupational therapy, social service, dietary departments and dispensaries. These are printed and copies are available to anyone in hospital or public health work. The bibliographies are extensive in scope, as is shown by the one on occupational therapy which covers the period from January 1895 to July 1, 1924. Additional bibliographies are to be published when funds are available.

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The problem of cooling the anodes of X-Ray Tubes has been of relatively small importance up to the present time. With the advent of the Water-Cooled Deep Therapy Tube, however, with its possibilities for the use of greater electrical current, this matter requires serious consideration.

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When using advertisements see Classified Index, also refer to YEAR BOOK.

BOOK REVIEWS AND CURRENT HOSPITAL LITERATURE

HOSPITAL ACCOUNTS AND FINANCIAL CONTROL

By JOSEPH E. STONE, incorporated accountant, Accountant to St. Thomas' Hospital, London, Fellow of the Society of Accountants and Auditors (incorporated), Fellow of the Royal Statistical Society, Fellow of the Royal Economic Society; Associate of the Chartered Institute of Public Administration.¹

Hospital Accounts and Financial Control by Joseph E. Stone, with foreword by Sir Arthur Stanley and an introduction by Sir Basil E. Mayhew, is a practical handbook for hospital officers and members of committees, as it is a systematized statement of the principles relating to hospital accounting and the methods of applying those principles.

The volume is not intended to cover every phase of the financial accounts of all hospitals but, with slight modifications to meet varying conditions and institutional peculiarities, the system outlined may be applied to any hospital, large or small.

The following points are emphasized in the work: (1) That hospital accounting should serve as an instrument of hospital administration with a view to financial control; (2) that since effective administration and control is dependent on effective organization, that accounting should be designed in terms of organization; (3) that the budget, an essential part of any system of financial control, is dependent on the accounting system and that the budget should serve as a statement of future accounts in terms of organization; (4) that the use of accounting in judging the efficiency and economy of the activities carried on is dependent on a correlation of accounting and statistical data; (5) that effective control requires the preparation and use of comprehensive financial statements covering the whole of the activities of the hospital; (6) that complete and accurate cost accounts are essential for effective administration and financial control; that to accomplish all this it is necessary to have a centralization of accounting and statistical procedure.

Part I of the volume deals with the financial accounts, and includes the following chapters: the income and expenditure system of accounting; annual estimates of income and expenditure; organization of and control over spending departments; accountant's department: office system in connection with accounts (a) expenditure; (b) cash payments; accountant's department: office system; (c) income; (d) receipts; salaries and wages; stores accounts; income tax; miscellaneous matters; petty cash, postage stamps, national health and unemployment stamps; the general ledger; the income and expenditure account and balance sheet; special funds and accounts.

Part II deals with the principles of cost accounts and their application to the activities of hospitals, and includes the following chapters: costing in relation to hospital accounts; classification of departments and units of cost; materials; provisions and food costs; wages; the cost ledger; on cost or overhead expenses.

The book contains appendices of periodical financial statements and cost statistics and principles of financial control by the finance committee and the accountant. A list of forms used in the work is indexed separately.

Although the book was designed primarily to serve the needs of British hospitals it is of interest to American hospitals as a guidebook in the fundamental principles of hospital accounting.

STEDMAN'S MEDICAL DICTIONARY

By THOMAS LATHROP STEDMAN, A.M., M.D., editor, *Twentieth Century Practice of Medicine*, and of the *Reference Handbook of the Medical Sciences*, formerly, editor, *Medical Record*.²

The eighth revised edition of Stedman's Medical Dictionary incorporates hundreds of new titles without increasing materially the size of the volume. In order to do this it was found advisable to drop the entries regarding the mineral springs of this country and Europe, since this subject is not pertinent to a defining dictionary.

Many of the new terms pertain to the science of dentistry, the need for their inclusion having come from dental practitioners as well as specialists in the field of medicine.

Special attention is given to the etymology of the medical terms, since this is an invaluable aid in fixing the term in one's memory. Preference is given to the simpler spelling forms, in the matter of elimination of diphthongs.

LEAD: THE PRECIOUS METAL

By ORLANDO C. HARN, National Lead Company, New York, N. Y.³

Many interesting facts concerning lead are woven into a story of that precious metal from the mines to its use in every-day life by Mr. Harn in his book, *Lead: the Precious Metal*.

The author does not confine the book to the technical interests of the metal to industrial workers, or commercial uses but presents it in such a way that is of interest to the general reader. The reader is amazed at the great industrial importance of lead and its compounds as in paint or glass or in sulphuric acid plants. We are reminded that it affects us to the extent that it adds weight

¹Sir Isaac Pitman & Sons, Ltd., London, New York, 1924.

²William Wood and Company, New York, N. Y.
³The Century Company, New York, N. Y., 1924.



THE ST. LAWRENCE HOSPITAL, LANSING, MICHIGAN
Clow Equipped

Architect: S. D. Butterworth, Lansing, Michigan.

Plumbing Contractor: Wheeler Blaney Co., Kalamazoo, Michigan.



Surgeon's Scrub Room of the
St. Lawrence Hospital

The neatness, good appearance and accessibility, illustrated in the small photograph to the left, have led many hospitals to standardize on Clow plumbing equipment. An additional factor has been broad engineering experience and manufacturing resources combined with the quality guarantee that the name *Clow* implies.

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to our rubber overshoes, that it conducts our drinking water to us, makes our window glasses transparent and helps to preserve our buildings.

The book is of special interest to the hospital field from its relation to x-ray equipment, chemical compounds, and the use of radium. The fact is pointed out that tons of lead are used in the manufacture of x-ray apparatus in order to counterbalance the operating tables. The use of lead by those who work with radium is somewhat similar to those of the x-ray operator except that the worker with radium requires greater protection than does the x-ray operator. A greater thickness of lead sheet is necessary to protect the radium, as is seen by the large cubic blocks of lead from eight to ten inches in dimension. These blocks contain a small hole into which the tiny tube of radium is inserted for safe keeping.

The curious uses of lead are thus interestingly described by the reader.

THE NEW DIETETICS

A guide to scientific feeding in health and disease, revised edition, by JOHN HARVEY KELLOGG, M.D., LL.D., F.A.C.S., Battle Creek Sanitarium, Battle Creek, Mich.

A glance at "The New Dietetics" makes the casual reader feel that diet must have a very definite relation to almost every human ailment. Indeed the facts set forth in the volume present the close relationship between nutrition, health and disease beyond the realization of the average lay person. Outside of the digestive processes of the three meals a day very few people consider the relation of diet to, say nervous diseases, disorders of the heart, bone and joint disease. Yet experimentation and experience have shown to a remarkable degree the influence of diet upon pathological conditions which the average person thinks of as remote from diet.

Dr. Kellogg has presented in a most simple and interesting way the subject of human feeding emphasizing the newer knowledge of nutrition and food values which have been brought to light recently by scientists such as Bouchard, Hopkins, McCollum, Sherman and many other nutritional investigators. The rational system of dietetics outlined in the book, though a departure from many current practices, is not only backed up by recognized authorities but is based upon laboratory research, animal feeding experiments and by clinical experience of almost a half a century.

The book is thorough in its treatise of food, its chemistry, metabolic processes and the physiology of eating as well as medical dietary. The tables and current data for use in balancing bills of fare, for lime and iron content, for diabetic patients, and for other diseases are not found in other current dietetics.

The developments of the last two years have stressed the emphasis which the work places upon antitoxic diet and the changing of the intestinal flora so that the methods pointed out for changing the flora and maintaining a normal intestinal flora have become thoroughly established by scientific research and extended clinical observation, and are generally accepted principles of dietary.—M. B.

NERVOUS AND MENTAL RE-EDUCATION

By Shepherd Ivory Franz, Director of Laboratories, St. Elizabeth's Hospital, Washington, D. C., and professor of psychology, George Washington University.

The transformation of hospitals for mental disease into schools of behavior—a movement which began be-

fore the World War, received marked impetus during the period of conflict, and has since rapidly progressed—is one of the most remarkable achievements in the development of these institutions. For a long time prior to the war many superintendents regarded re-education, or occupational therapy, as a fad and were loath to use it, except in a half-hearted way with a limited group of patients. The attitude of these superintendents was shared by their medical staffs, and naturally the results they obtained were meager and unsatisfactory. Here and there were physicians and hospital aides with deeper insight who grasped the significance and the possibilities of the new reeducational methods and skillfully applied them. The noteworthy results achieved by these workers led to the adoption of occupational therapy in army hospitals and later to its gradual extension to all classes of hospitals.

Dr. Franz's new book is a valuable contribution to this important department of therapy. It is written primarily "to show medical men who are not specialists in these fields, as well as the public, the general principles and the manner of applying them in the neuroses and psychoses."

The book is divided into three parts. The first part deals with the basis and general concept of re-education and in reality is a brief psychology of occupational therapy. The topics specially treated in this section include the nature of re-education, the foundation of habits, and mental attitudes and incentives. The second part discusses the general principles of re-education, including the formation of habits, movement, methods, and measure of performance. The third part takes up specific methods of treating cases of infantile paralysis, locomotor ataxia, cerebral paralyses, and speech defects. The last chapter deals with the psychotic.

The value, possibilities, and limitations of the application of re-educational methods to the various types of patients are thoroughly discussed. Comparatively little consideration, however, is given to the ways and means of bringing about the desired results, although many valuable suggestions are given. No mention is made of the large group of dementia praecox patients, which constitute the principal problem of the occupational therapist in a hospital for mental disease. The term "occupational therapy" is used by the author in a restricted sense, as embracing only that part of re-education which relates to specific occupation.

Most workers in this field now include in occupational therapy everything that Dr. Franz includes in re-education.

On the whole, the purpose of the book has been well carried out and should make a strong appeal to physicians and therapists who desire to become familiar with the underlying principles of re-education.—H. M. P.

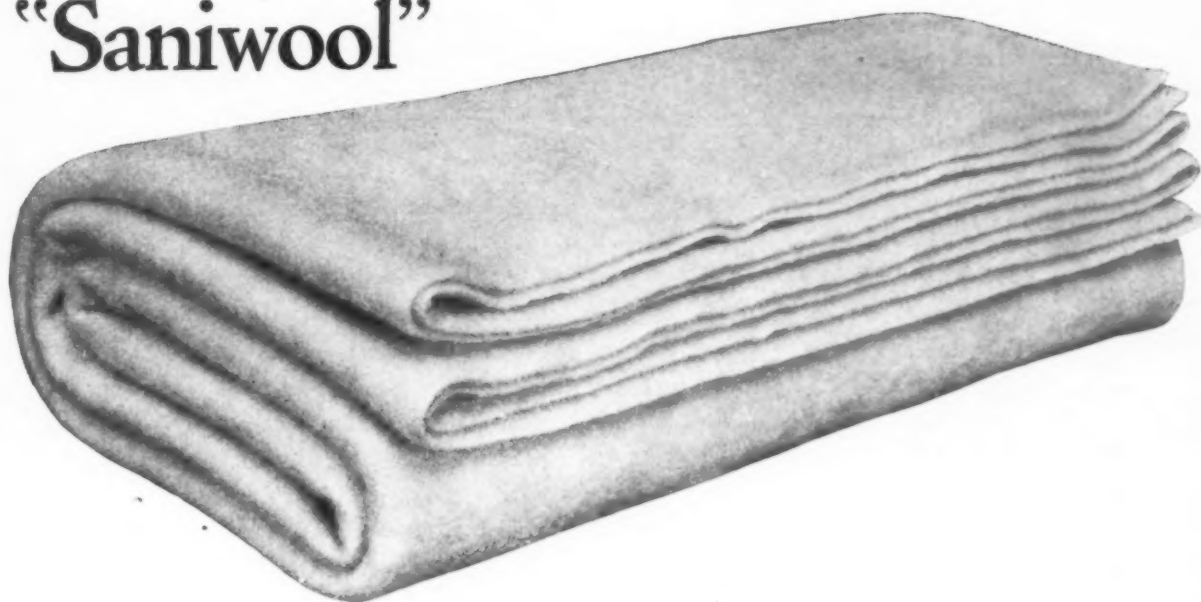
BOOKS RECEIVED

OBSTETRICAL NURSING. A manual for nurses and students and practitioners of medicine, by Charles Sumner Bacon, Ph.B., M.D., professor of obstetrics in the University of Illinois and the Chicago Polyclinic; medical director, in the Chicago Lying-in Hospital and Dispensary; attending obstetrician to the University, Chicago Polyclinic, Henrotin, Grant and Evangelical Deaconess Hospitals, Chicago, Ill. Second edition, thoroughly revised, illustrated with 126 engravings. Lea Febiger, Philadelphia and New York, 1924.

ETHICAL PRINCIPLES FOR THE CHARACTER OF A NURSE. By James M. Brogan, S. J., president, Gonzaga University, 1913-1920. Third impression, The Bruce Publishing Company, Milwaukee, Wis.

¹The Modern Medicine Publishing Company, Battle Creek, Mich.

EATON "Saniwool"



A Blanket Scientifically Built for Long Hospital Wear

HERE is a blanket combining all the time-honored characteristics of EATON quality with the special requirements demanded by hospital usage.

The EATON "Saniwool" is essentially a hospital blanket built upon definite specifications, the direct result of a long series of scientific tests made under actual hospital conditions.

This means, briefly, that many of the country's leading superintendents matched their full co-operation, with our 88 years' experience in blanket manufacturing, to determine scientifically the best average weights, proper

lengths of fibre, and correct range of colors to insure long wear and blanket satisfaction under all hospital conditions.

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Best of all the EATON "Saniwool" is strikingly economical. The first cost is no higher than is asked for the ordinary, and its wearing qualities reduce replacement costs to a minimum.

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Colors—Blue Heather, Brown Heather, Natural Gray, and White*

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NEWS OF THE HOSPITALS AND SANATORIUMS

The department of "News of the Hospitals and Sanatoriums" is prepared each month just prior to going to press, for the purpose of presenting the latest authentic news regarding hospital construction, changes in personnel, and other matters in which the hospital field is interested. So far as we can ascertain, the sources of our information, while not guaranteed, are reliable.

General

Bequests and Donations.—The following bequests and donations have recently been announced: St. Luke's Hospital, New York, N. Y., \$2,000; National Jewish Hospital for Consumptives, Denver, Colo., \$2,500; Roosevelt Hospital, New York, N. Y., \$2,500; by the will of the late Solomon C. Guggenheimer.

St. Mary's Hospital, Brooklyn Home for Blind, Crippled and Defective Children, Port Jefferson, L. I., and Mercy Hospital, Buffalo, each will receive \$6,848.77 by the will of Mrs. Catherine Augstin Caldwell; the Hebrew Orphan Home and Mount Sinai Hospital, each \$200 by the will of the late Cecilia Lebedinsky.

The will of Gilman L. Parker, Reading, Mass., provides for setting the establishment of a hospital in Reading.

The Portsmouth Hospital, Portsmouth, N. H., is the beneficiary of \$40,000 by the will of the late Mrs. Sarah G. Salter to perpetuate the memory of her husband.

Veterans' Hospitals Organized.—Pursuant to instruction of the Secretary of War, June 27, 1922, the following organized reserves have been authorized: General Hospital, No. 120 (Detroit College of Medicine Unit, San Francisco, Calif.) General Hospital No. 45 (York Hospital and Dispensary Unit, York, Pa.) and General Hospital, No. 20 (Hospital of the University of Pennsylvania, Philadelphia, Pa.).

New Superintendents.—The following new superintendents have recently been announced: Dr. R. H. Oppenheimer, Wesley Memorial Hospital, Atlanta, Georgia; Miss M. Della DeLong, Silver Cross Hospital, Joliet, Ill.; Miss Aurelia Baker, McComb Infirmary, McComb City, Miss.; Mr. William S. Sindey, Bronx Hospital, Bronx, N. Y.; Mrs. G. M. Lake, LaFayette Home Hospital, LaFayette, Ind.; Miss Rose Hord, Civic League Hospital, Jackson, Tenn.; and Miss Esther Fleming, Grafton City Hospital, Charleston, W. Va.

Hospitals and Additions Recently Opened.—The following new hospitals and additions have recently been opened: The new administration building for the Phoenix Sanatorium, Phoenix, Arizona; Dr. Gallant's Neurological Hospital, New Orleans, La.; U. S. Veterans' Hospital, No. 100, Camp Custer, Battle Creek, Mich.; new addition for the Elizabeth General Hospital, Elizabeth, N. J.; new home for the Soldiers' and Sailors' Memorial Hospital,

Penn Yan, N. Y.; new pavilion for the Vassar Brothers' Hospital, Poughkeepsie, N. Y.; annex for the Jefferson Medical College and Hospital, Philadelphia, Pa.; home for the Methodist Hospital, Memphis.

Mercy Hospital, Tiffin, Ohio, is named beneficiary of \$1,000 by the will of the late Louis Pfeifer; the Deaconess Hospital, Lincoln, Ill., \$15,000, the gift of Miss Effie Zol-lars, Lincoln, for the erection of a nurses' home; the Hospital for Sick Children, Toronto, Ont., \$2,000 by the late E. Mercer, York Township, Ont.; for a community hospital in Louisiana, Mo., \$1,000,000 by the will of Otis Smith, and \$40,000 by the will of Susannah P. Barr; the will of Catherine E. S. Stuyvesant directs that the residue of her estate, estimated at about \$1,800,000, go toward the establishment of the "A Van Horne Stuyvesant Memorial Hospital" on the death of her brother and sister and their descendants, and that this institution be administered as a unit of St. Luke's Hospital, New York, N. Y.

Alabama

Additions to the Mobile City Hospital.—Plans are now under way for additions to the Mobile City Hospital, Mobile, to be made at a cost of \$150,000.

Montgomery Memorial Hospital to Open Next Month.—The Montgomery Memorial Hospital, Montgomery, which will have a capacity of seventy beds, will open January 15.

Arizona

Mrs. Sexson to Superintend Deaconess Hospital.—Mrs. J. O. Sexson, formerly Miss Runyan, superintendent, Flower Hospital, Toledo, Ohio, has accepted the superintendency of the Deaconess Hospital, Phoenix, to succeed Mr. John A. Bowman. Her husband will act as business manager of the institution.

Arkansas

Camden Has New Hospital.—A new hospital is under way at Camden. It is expected to be completed by February 1.

California

Plan New Laundry Building.—The Seaside Hospital, Long Beach, is planning a new laundry building to be erected soon.

Hospital Soon to be Opened.—Kern County's new \$600,000 general hospital will be formally opened between November 15 and December 1.

Hospital for Federation of Jewish Welfare Agencies.—A new hospital is being planned for the Federation of Jewish Welfare Agencies, Los Angeles. The building will have 150 beds.

Plan Campaign for Clara Barton Hospital.—A campaign

PATIENTS and *Patience!*

THE greenest interne can write a volume where we can write a word or two as to the value of patience in the patient's recovery.

This we do know though, that patience does enter into the equation and that comfort has much to do with patience. Considered from this angle alone, there is every justification for Canton-Knit padding—because this splendid padding does retain its softness even after countless washings.

But from the angle of utility, Canton-Knit earns its own way as it gives perfect protection—and stands up under the constant abuse of harsh treatment—lasts for years.

A trial of a few pads of Canton-Knit padding will quickly tell you why this material is standard practice for bed protection in some of the largest hospitals and institutions in the country.

Canton-Knit Padding supplied in all standard bed
sizes, with bound edges

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Athey Perennial *Window Shades*

Because they shade the portion of the window that requires it, without shutting out all the light—because they add a touch of beauty—and because experience has shown that their many years of usefulness **make them the most economical shades obtainable**—Athey Perennial Shades have become "standard" for fine buildings of all kinds—Schools, Hospitals, Hotels, Apartments, Offices. The Equitable building (above) designed by Starrett and Van Vleck, is only one of many notable examples.

Athey Products

Perennial Window Shades Disappearing Partitions
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6022 West 65th Street • Chicago, Illinois

to raise funds for a new home for the Clara Barton Hospital, Los Angeles, will start in March, according to a recent announcement.

Woodland Sanitarium to be Enlarged.—The Woodland Sanitarium, Woodland, has purchased the property across from the institution as the site for the enlargement of the present institution. The present capacity of the institution is 100 beds.

Begin Work on New Marine Island Hospital.—Excavation for the site for the first ward of the new \$980,000 naval hospital was begun November 5. The contract for the first ward, the psychopathic building, has been awarded to Larsen & Segresit, San Francisco.

Colorado

Addition to Boulder Community Hospital.—A sum of \$85,000 is being raised for an addition to the Boulder Community Hospital, Boulder, which will increase the bed capacity of the hospital to sixty.

Dr. Swezey Resigns as Medical Director.—Dr. Samuel Swezey has resigned as medical director of the National Jewish Hospital for Consumptives, Denver, and is now with the Jewish Consumptive Relief Association at Duarte, Calif.

Delaware

St. Francis Hospital Opens.—The new St. Francis Hospital, Wilmington, was opened to the public October 19. It is under the management of the Order of Sisters of St. Francis who furnished half the cost of the building.

District of Columbia

Plan Methodist Home for the Aged.—Sketches are being drawn for a two-story building which will serve as a Methodist Home for the Aged, Washington.

Georgia

New Quarters for Old Women's Home.—A new building is being erected for the Old People's Home, Atlanta, at a cost of about \$125,000.

To Erect Tuberculosis Sanatorium at Alto.—Work is beginning on the new tuberculosis sanatorium for the state of Georgia, Alto, which was authorized by the state legislature last year, granting \$500,000 to the state health department for the new sanatorium.

Idaho

To Purchase Inland Empire Hospital.—Dr. C. F. Magee, Moscow, has completed arrangements for the purchase of the Inland Empire Hospital from Dr. W. H. Carithers, who had conducted the hospital for many years.

Illinois

Grant Hospital Plans Nurses' Home.—The Grant Hospital, Chicago, is planning the erection of a new nurses' home.

Lathan Hospital to be Enlarged.—Plans are being drawn for a new addition to the Lathan Hospital, Eldorado.

Loan to Complete Nurses' Home.—The Oak Park Hospital, Oak Park, has obtained a loan of \$100,000 to complete its nurses' home.

Appointed Superintendent of Methodist Hospital.—Miss Bernice Lane was recently appointed superintendent, Methodist Hospital, Peoria.

Marks Nathan Jewish Orphan Home to be Remodeled.—Bids are being taken for the remodeling of Marks Nathan Jewish Orphan Home, Chicago.

\$3,773,030

Raised for twelve different hospitals during the past twelve months. If your hospital is considering new or additional building we will gladly confer with you without any obligation, financial or otherwise. We will not knowingly accept a campaign unless, as a result of investigation, we feel we can confidently predict success.

Our campaigns are timed not simply to obtain the money desired, but in addition, to leave the hospital with a friendly constituency that will continue to contribute, because it has become acquainted in first hand fashion with the hospital's accomplishments.

Below is a list of a few of our hospital campaigns:

	Objective	Secured
Fifth Avenue Hospital, New York City.....	\$2,000,000	\$1,850,000
Post Graduate Hospital, New York City.....	2,000,000	1,600,000
United Hospital, Rochester, N. Y.....	1,300,000	1,395,000
Union Protestant Infirmary, Baltimore, Md.....	750,000	810,000
American Hospital of Paris, France (2 campaigns).....	400,000	660,000
Church Home and Infirmary, Baltimore, Md.....	600,000	450,000
Washington Hospital, Washington, Pa.....	500,000	523,000
Miami Valley Hospital, Dayton, Ohio.....	500,000	515,000
Methodist Hospital, Fort Worth, Texas.....	500,000	502,512
Stanford University Hospital, San Francisco.....	500,000	500,000
Presbyterian Hospital, Denver, Colo.....	500,000	500,000
Maryland General Hospital, Baltimore.....	450,000	483,000
Paterson General Hospital, Paterson, N. J.....	400,000	450,000
Memorial Hospital, Pawtucket, R. I.....	300,000	422,190
Eliza Jennings Home, Cleveland, Ohio.....	300,000	362,056
Children's Hospital, St. Louis, Mo.....	300,000	330,000
Mercy Hospital, Pittsfield, Mass.....	250,000	328,000
University of Maryland Hospital, Baltimore.....	250,000	250,000
St. Mary's Hospital, Rochester, N. Y.....	225,000	344,890
Southside Hospital, Bayshore, Long Island, N. Y.....	200,000	230,000
Toronto Western Hospital, Toronto, Can.....	.....	210,000
White Plains Hospital, White Plains, N. Y.....	200,000	200,000
St. Lawrence Hospital, Lansing, Mich.....	200,000	206,000
Maternity & Children's Hospital, Toledo, Ohio.....	150,000	158,500
Methodist Hospital, Sioux City, Iowa.....	125,000	153,500
Pottsville Hospital, Pottsville, Pa.....	100,000	120,000
Hayswood Hospital, Maysville, Ky.....	100,000	116,800
Saratoga Hospital, Saratoga Springs, N. Y.....	100,000	116,000
Cape Cod Hospital, Hyannis, Mass.....	.....	110,000
Ogdensburg City Hospital and Orphanage, N. Y.....	75,000	123,369
United Helpers Home, Ogdensburg, N. Y.....	75,000	116,000
Dobbs Ferry Hospital, Dobbs Ferry, N. Y.....	75,000	116,019
Vineland Hospital, Vineland, N. J.....	75,000	76,000
Shenandoah Hospital, Shenandoah, Pa.....	70,000	110,000
St. Francis Hospital, Poughkeepsie, N. Y.....	75,000	100,000
St. Francis Hospital, Port Jervis, N. Y.....	75,000	80,000
Newcomb Hospital, Vineland, N. J.....	50,000	60,000

Campaigns conducted on a moderate fee for service rendered; not on a percentage of amount raised.

Our Quarterly Bulletin gives further details and will be sent upon request

CHARLES SUMNER WARD

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If you contemplate a fund-raising effort it is important that you secure a campaign organization with a productive record. This can be determined only by investigation—not merely by reading bald statements of achievement, which can easily be made. The exact amount raised is not so important as the fact of whether or not the client knows that the *maximum sum possible* has been raised in the service area of the institution.

Mary Frances Kern holds that *testimony* is more important than *assertion* as a guide in determining the choice of the best organization service available. She believes in letting *satisfied clients furnish the evidence*. Make sure you are right before you contract with any campaign concern. Investigate!

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Financial Campaigns

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NEW YORK CITY

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TORONTO, CAN.

Nurses' Home for St. Anthony de Padua Hospital.—Plans are being drawn for a new nurses' home for St. Anthony de Padua Hospital, Chicago.

Wesley Memorial Hospital Plans Nurses' Home.—Plans are being drawn for the new \$500,000 home for nurses for Wesley Memorial Hospital, Chicago.

Dr. Cobb to Superintend Iroquois Memorial Hospital.—Dr. Ralph B. Cobb has been appointed superintendent of the Iroquois Memorial Hospital, Chicago.

Augustana Home for the Aged Enlarges.—The Augustana Home for the Aged, Chicago, announces that it will soon begin the construction of a \$150,000 building.

Norwegian-American Hospital Plans Addition.—The Norwegian-American Hospital, Chicago, is planning the construction of a \$300,000 addition in the near future.

West End Hospital Severs Connection with Chicago Medical College.—The West End Hospital, Chicago, has severed its connections with the Chicago Medical College.

Miss De Long New Superintendent at Silver Cross Hospital.—Miss M. Della De Long, Kansas City, Mo., has succeeded Miss Marie C. Peterson as superintendent, Silver Cross Hospital, Joliet.

Reelected President of Health Council.—Dr. Walter C. Reineking, medical director and superintendent, Rockford Municipal Sanitarium, Rockford, has been reelected president of the Rockford Health Council.

Dr. Abbott Returns to Chicago.—Dr. Wilson R. Abbott, for three years medical director of U. S. Veterans' Bureau Hospital No. 55, Fort Bayard, N. M., has resigned and has returned to Chicago to resume practice in tuberculosis.

Christmas Seals Maintain Seventeen Health Centers.—The superintendent of the Chicago Tuberculosis Institute states that the institute now maintains seventeen health centers and twenty-three public health nurses which are financed by the sale of Christmas seals.

Site Selected for New Medical College and Hospital.—The University of Chicago has set aside a tract of nine acres, two blocks west of Ellis Avenue, facing the Midway, to be devoted to the new medical school. The buildings now on the tract will be removed and the university will soon spend \$4,000,000, and eventually \$3,000,000 more, for hospitals, laboratories and teaching quarters.

Presbyterian Hospital Plans \$300,000 Addition.—Bids are being taken upon a \$300,000 extension which will make the Presbyterian Hospital, Chicago, an institution with a capacity of 500 beds. Thirty-five moderately priced private rooms are to be in the new section which will be reconstructed on the "Bacon Plan." Architects are completing plans for remodeling the fourth, sixth and seventh floors of the Jones and Murdoch buildings and for a seven-floor building between the Jones and the private pavilion.

Indiana

To Superintend Nurses.—Miss Veronica Stapleton who has been superintendent of nurses at State Children's Hospital, Iowa City, has been appointed superintendent of nurses at the James Whitcomb Riley, Indianapolis.

Miss Pearson to Succeed Miss Widdifield.—Miss Norma Pearson, formerly superintendent, Muncie Hospital, Muncie, has succeeded Miss Clara Widdifield, who resigned as superintendent, Major Memorial Hospital, Shelbyville.

Dr. Parramore to Head Lake County Tuberculosis Sanatorium.—Dr. James O. Parramore, Rochester, N. Y., has been chosen by the board of trustees to direct the Lake County Tuberculosis Sanatorium, Hammond. The sanatorium will be ready for occupancy during the winter.

Mrs. Lake Succeeds Miss Rogers.—Mrs. G. M. Lake,



Your little patients who need whole grains

*Delight them with "Foods
Shot From Guns"*

Children who can't be coaxed to eat the usual cereal dishes revel in Quaker Puffed Wheat and Puffed Rice.

Each kernel is a confection with the flavor of nutmeats. But—such wholesome, nutritious confections, whole grains puffed to eight times normal size, every food cell broken to insure quick, easy digestion and assimilation.

Quaker Puffed Grains can be served in an almost endless variety of enticing ways. With sugar and cream, floated in bowls of milk, with fresh or canned fruit. As a between-meal treat, mothers offer a bowl buttered and salted like popcorn.

Adults also like Puffed Grains served these same ways. For the brain-worker they make a sleep invoking bedtime dish which puts no strain on the digestion.

**Quaker Puffed Wheat
Quaker Puffed Rice**



Barley Builds Better Babies!

BARLEY—the food of the gladiators, the fighting ration of the armies of antiquity, Caesar's choice dish, the bone and muscle builder of the ages, the King of grain foods for centuries.

The importance of Barley Water in infant feeding has long been recognized. As a simple, highly beneficial, and easily assimilable nourishment for invalids, Barley is steadily growing in favor among physicians, dietitians, and nurses.

JOHNSON'S PURE BARLEY FLOUR, an American product, carefully milled from selected American Barley, provides this valuable food in a form especially adapted to the needs of infants and invalids.

There are many delectable ways of serving JOHNSON'S PURE BARLEY FLOUR to patients—ways which supply appetizing, health-building dishes for young and old.

FREE TO HOSPITALS

A full-sized can of JOHNSON'S PURE BARLEY FLOUR and also a package of CREAM OF BARLEY, will be sent Hospital superintendents or dietitians free upon request.

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CREAM OF BARLEY

Carefully milled from the whole Barley grain, served with cream and sugar provides a perfectly balanced, highly nutritive food, especially valuable for growing children, invalids and those suffering from malnutrition.

Served as a breakfast cereal it has a delicious, rich, nutty, fascinating flavor.

To the Dietitian—



THE value of Junket in the sick room diet hardly needs emphasizing. Providing all the food value of milk, pre-coagulated for easier digestion, and in tasty form that patients enjoy, Junket deserves a regular place on your menus.

Send for our helpful recipe book.

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Importers—Manufacturers—Wholesalers

formerly superintendent, Memorial Hospital, Mt. Pleasant, Pa., and City Hospital, Coshocton, Ohio, for eight years, has succeeded Miss Margaret Rogers, as superintendent, Lafayette Home Hospital, La Fayette. Miss Rogers sailed for Europe November 15.

Plan Additions to James Whitcomb Riley Hospital.—An additional unit and a convalescent home are included in the building plans of the James Whitcomb Riley Hospital for Children for the coming year. When completed, the hospital will have a capacity of from 3,000 to 3,500 children annually. The first units which were dedicated October 7, have a capacity of 120. Dr. Samuel Smith, medical provost, Indiana University, has been appointed general superintendent in charge of the hospital.

Iowa

New Home for Yocom Hospital.—Plans are being drawn for a new home for the Yocom Hospital, Chariton.

Cornerstone Laid for Lutheran Hospital.—The cornerstone for the new Lutheran Hospital, Fort Dodge, was laid November 2.

State Convention of Catholic Hospitals.—A state convention of Catholic hospitals was held at Davenport, November 12 and 13. The sessions were held at Mercy Hospital.

Miss Azeltine to Succeed Miss Lewis.—Miss M. A. Azeltine, formerly night superintendent, Atlantic Hospital, Atlantic, has succeeded Miss F. G. Lewis as superintendent of the institution.

To Superintend Eleanor Moore County Hospital.—Miss Eleanor E. Boettcher has been appointed superintendent, Eleanor Moore County Hospital, Boone. She was formerly an executive of the Colonial Hospital, Rochester, Minn.

New Hospital for Oelwein.—A campaign is now under way to secure funds for the erection of a forty-bed hospital for Oelwein. The campaign is launched to secure \$60,000. The balance of the funds will be supplied by the Sisters of Mercy of Cedar Rapids who will furnish the balance of the amount necessary to complete the hospital.

Kansas

Methodist Episcopal Hospital for Hays.—A new Methodist Episcopal Hospital is to be erected at Hays, at a cost of \$30,000.

Miss Johnson to Superintend Southeast Kansas Hospital.—Miss Minnie Johnson has been appointed superintendent, Southeast Kansas Hospital, Coffeyville, succeeding Miss Maude Culley, who resigned.

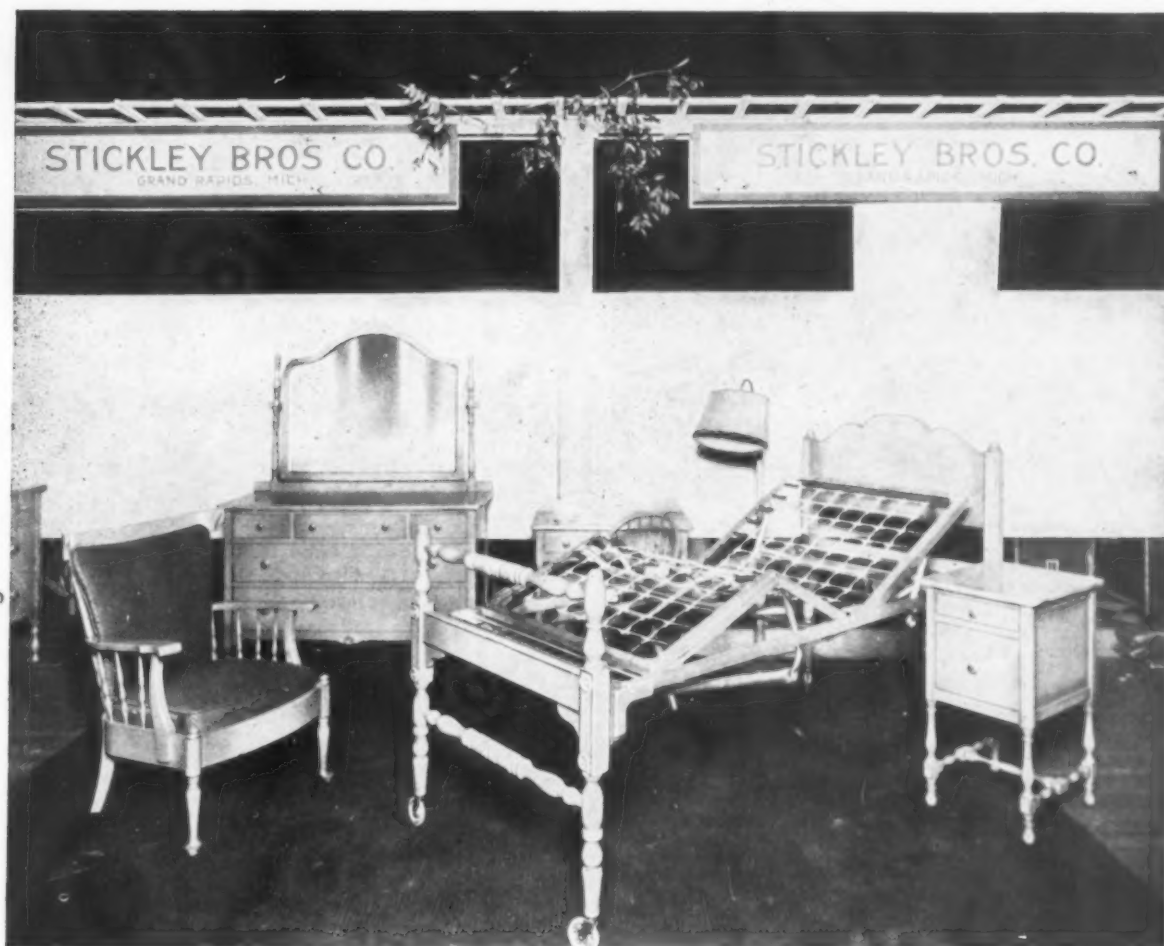
Kentucky

Baptist Hospital Opened November 1.—Construction work has been completed on the new Kentucky Baptist Hospital, Louisville, which was ready for occupancy November 1, it is announced. The building is six stories high.

Maryland

Veterans' Bureau Hospital at Perry Point Dedicated.—The new receiving and diagnostic building of the Veterans' Bureau Hospital, Perry Point, was dedicated September 27. It is the first of a group of seven buildings to be erected for mentally disabled war veterans. Dr. Charles A. Barlow is medical officer in charge.

New Building of Crippled Children's Hospital Opened.—The new building of the Children's Hospital School, Baltimore, was formally opened November 1, making possible



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Wood furniture designed and finished to meet the exacting requirements of Hospital Service.

The lines are pleasing to the eye of the most fastidious patients, give a home-like and cheerful atmosphere, which will build additional good will for your hospital.

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Among the many institutions that are 100 per cent VENTILITE equipped may be mentioned:

Augustana Hospital	Chicago, Ill.	3 Ventilites
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the accommodation of 121 cripples instead of fifty-five, the former capacity. The increased accommodations mean that the hospital can treat between 500 and 600 children annually.

Sydenham Patients Transferred to Montebello.—The patients of the Sydenham Hospital, (the Baltimore Hospital for Contagious Disease) were recently transferred to the new hospital at Montebello which has a capacity of 110 patients. Dr. Birkhead McGown is the superintendent. The old Sydenham Hospital has been turned over to the supervisors of city charities to be used as a part of the Bay View group.

Massachusetts

Nurses' Home for Worcester City Hospital.—Worcester City Hospital, Worcester, is building a new nurses' home at a cost of \$400,000.

Celebrate Ether Day.—The trustees of the Massachusetts General Hospital, Boston, celebrated the seventy-eighth anniversary of Ether Day, October 16, in the Moseley Memorial Building.

Addition to Beth Israel Hospital.—The construction of a building for Beth Israel Hospital, Boston, which will have a capacity of 150 beds has started as the beginning of the \$1,500,000 building program.

Michigan

Michigan Association to Meet Next Month.—The Michigan Hospital Association will hold its annual meeting at Saginaw, January 8-9, 1924.

Hospital for Plymouth Mining Company.—The Plymouth Mining Company, Wakefield, has awarded the contract for a \$50,000 hospital building for the company.

Land Purchased for Psychopathic Hospital.—St. Joseph's Mercy Hospital, Ann Arbor, has purchased a tract of eighty-eight acres of land, three miles from the city, for the purpose of building a psychopathic hospital.

Jefferson Clinic Opens Diagnostic Hospital.—The Jefferson Clinic, organized in 1911, as the first group medicine clinic established in the state, formally opened a diagnostic hospital in Detroit, October 1. The hospital has a capacity of fifty beds.

Minnesota

Miss Patterson Resigns.—Miss Adah H. Patterson, superintendent, St. Luke's Hospital, St. Paul, has resigned her position.

Dr. Goodwin to Establish Trachoma Hospital.—Dr. Joseph L. Goodwin, who was formerly in charge of the Trachoma Hospital, Russellville, Ark., had gone to Eveleth to establish a trachoma hospital.

Missouri

Hospital Opened at Harrisonville.—A new hospital which it is hoped will form the nucleus of a county hospital has been established by the physicians of Harrisonville in the residence of C. V. Lynch.

Ground Broken for Christian Hospital.—Ground has been broken for the erection of the Christian Hospital, St. Louis.

Montana

Addition to Receiving Hospital Opens.—The formal opening of the new addition to the receiving hospital, Montana State Hospital, Warm Springs, was opened recently.

St. Marys Woolen Manufacturing Co.

St. Marys, Ohio

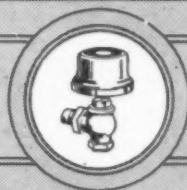
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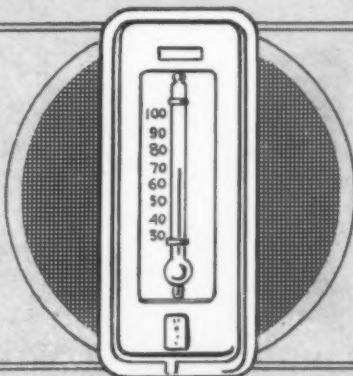
Northern Pacific Railway Hospitals

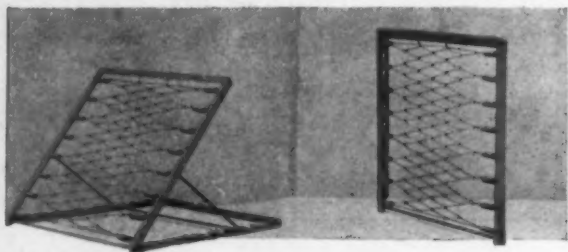
Northern Pacific Beneficial Association Hospitals, in both St. Paul, Minn. and Missoula, Mont., are equipped with The Johnson System of Temperature Control. Likewise, the Tennessee Coal and Iron Employees Hospital, Fairfield, Alabama, is Johnson equipped. Here, professional efficiency combines with administrative economy: The Johnson System automatically maintaining temperatures perfectly, and by the same token affecting fuel saving of from 15 to 35 per cent per year. And that is just why all hospitals should install The Johnson System of Control.

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RACINE WISCONSIN.

Nebraska

North Platte to Have Hospital.—Bids have been taken for a hospital for North Platte.

To Superintend Hillcrest Hospital.—Mrs. Nellie Dwinell, a graduate of Nebraska Methodist Hospital, Omaha, has been appointed superintendent, Hillcrest Hospital, Seward.

Heads West Nebraska Methodist Hospital.—Miss Martha E. Dubois, who has been affiliated with the Nebraska Methodist Hospital, Omaha, for eight years, has been appointed superintendent of the West Nebraska Methodist Episcopal Hospital, Scottsbluff.

New Jersey

Nurses' Home for Overlook Hospital.—Plans are being made for a three-story nurses' home for the Overlook Hospital, Summit.

Fairmount Surgical Sanatorium to Have New Home.—Work is under way for a new home for the Fairmount Surgical Sanatorium, Jersey City.

Children's Hospital for Asbury Park.—Bids are being taken for the construction of a two-story building to be known as the Children's Hospital, Asbury Park.

St. Luke's Hospital to Have Children's Pavilion.—The St. Luke's Hospital, New Bedford, is planning the erection of a new children's pavilion which will be two stories high, the first story to be for ward patients and the second for private and intermediate patients. The building will also contain a dietetic milk laboratory. It will also accommodate sixty-seven patients.

Ground Broken for Reception Hospital.—Ground was broken October 13 for the new Morris Plains Hospital, Morris Plains, which marks the beginning of the expenditure by the state of \$2,225,000 authorized by the state legislature for the department of institutions and agencies. It is estimated that the new building, when completed, will accommodate 250 patients.

New Mexico

Baptist Hospital to be Run by State Board.—The Baptist Hospital, Clovis, was taken over October 31, by the Baptist state convention, according to Mr. C. W. Stumph, secretary of the convention, who has been named superintendent of the hospital. The hospital cost \$50,000 and has twenty-three beds.

New York

New Home for Rosary Hill Home.—The Rosary Hill Home, Hawthorne, is to have a new home to cost \$400,000.

Lay Cornerstone of St. Joseph's.—The cornerstone of the new St. Joseph Hospital, Syracuse, was laid October 18.

Syracuse Hospital to Have New Addition.—The People's Hospital, Syracuse, has under construction a new three-story addition.

Jennie Clarkson Home for Children.—Contract has been awarded for the new home for the Jennie Clarkson Home for Children, Valhalla.

Nurses' Home for Bethesda Hospital.—The Bethesda Hospital, Hornell, is to have a new nurses' home to be erected at a cost of \$17,000.

Donation for Bronchoscopic Clinic.—A donation of \$5,000 has been made to the new Hospital for Deformities, New York, for the establishment of a bronchoscopic clinic.

Miss Kelm to Burke Foundation.—Miss Lillian Kelm who for the past four years has been assistant to Miss Wadley, Bellevue Hospital social service department, New York, has assumed her new duties as director of social service at the Burke Foundation, White Plains, N. Y.

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Under all conditions *Super-Speed* films will give the best possible negatives. And—

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Let us send you samples free.

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Please send me samples and further information about
Dennison Tray Covers and other Specialties for Hospitals.

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New Wing of Cancer Hospital Dedicated.—The new wing at the Hospital for the Treatment of Cancer at Fetherbedlane and Macomb's Lane, New York, was dedicated October 31, by Cardinal Hayes.

Lebanon Hospital Purchases Block.—The Lebanon Hospital, New York, has purchased the entire block bounded by the Grand Concourse, Mt. Eden Avenue, for a site for new buildings with a capacity of 300 beds.

Postgraduate Hospital Enlarges Quarters.—The New York Postgraduate Hospital and Medical School has purchased an adjoining building of the United Hebrew Charities, making the capacity of the hospital 410 beds.

Dr. Savage to Direct Cranleigh Hospital.—Dr. A. J. Barker Savage, for many years superintendent, Broad Street Hospital, New York, will be director of the new Cranleigh Hospital, a private institution to be erected at 159 East Nineteenth Street. The hospital will have a capacity of 100 beds.

Hotel Roosevelt Has Hospital Suite.—The Hotel Roosevelt, New York, recently opened, includes a complete hospital suite, comprising a physician's office, waiting room for guests, waiting room and dispensary for employees, laboratory and operating room. The resident staff consists of a physician and assistant and three nurses.

New Three-Story Building for Nassau Hospital.—Ground has been broken for a new three-story brick building, for the Nassau Hospital, Mineola, which is to contain a complete operating department, and children's hospital of private, semi-private and ward beds, and additional private and semi-private wards which will bring the total capacity of the hospital up to eighty beds.

Free Insulin Clinics at Broad Street Hospital.—The Masonic Hospital Foundation has established an insulin fund at the Broad Street Hospital for the treatment of patients with diabetes who are unable to pay for insulin. The foundation and the staff of the Broad Street Hospital have also arranged for free daily clinics, Saturdays and Sundays excepted, for the instruction of diabetic patients in the preparation of diets and the administration of insulin.

Orthopedic Dispensary and Hospital Enlarges.—A new private patient pavilion is now under way adjoining the present structure at the New York Orthopedic Dispensary and Hospital, New York. The building, which is expected to be completed by May, 1925, will provide thirty-two private rooms in addition to offices, record rooms, x-ray and dressing rooms on first floor. A new building with rooms for thirty-five adults has just been opened at the hospital's country branch, White Plains, in connection with its convalescent service for those suffering from joint tuberculosis.

North Carolina

Work Begun on Hospital at Albermarle.—The contract has been awarded for the erection of a new \$50,000 hospital for Albermarle.

Lincoln Hospital Opens.—The Lincoln Hospital, the new Durham hospital for colored patients was completed November 3. The new institution cost \$150,000 and contains 100 beds.

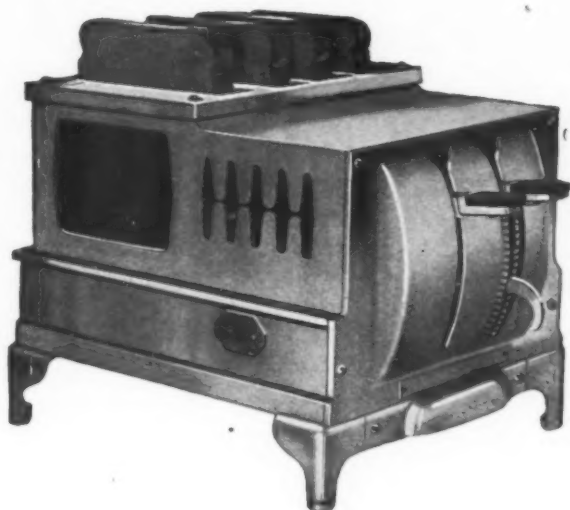
Park View Hospital Expands.—A separate institution for colored patients with a capacity of thirty beds has been established at the Park View Hospital, Rocky Mount, bringing the total capacity up to eighty beds. The addition has two wards of eight beds each and fourteen private rooms.

North Dakota

Trinity Hospital Building Dedicated.—The new \$250,000 building of Trinity Hospital, Minot, was dedicated recently.

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TOAST SERVED BETTER AND MORE ECONOMICALLY

THE 4-slice Strite TOASTMASTER in your diet kitchen forever ends the fussing, the waste of time and the cold, soggy or tasteless toast that often makes the day start wrong for the patient.

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The TOASTMASTER is automatic! You simply place bread in the slots and depress two levers. That's all!

The nurse can serve one patient while the TOASTMASTER makes hot toast for the next. The toast pops up when done and the current automatically shuts off. Oven heat keeps toast hot until served. No scraping—No bread wasted—No re-toasting—Tender, crisp, evenly browned toast every time!—With any bread, fresh or dry.

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Ohio

Improvements for District Tuberculosis Hospital.—Improvements costing about \$10,000 are being made to the District Tuberculosis Hospital, Lima.

Addition to Franklin County Tuberculosis Sanitarium Planned.—Plans are being made for an addition to the Franklin County Tuberculosis Sanitarium to cost \$125,000.

St. Vincent's Hospital Enlarges.—St. Vincent's Hospital, Toledo, has awarded the contract for the construction of the \$300,000 addition for the pediatric, general surgical and medical cases, and a maternity department.

Bethesda to Have New Six-story Building.—Bids have been taken for the new building for the Bethesda Hospital, Cincinnati, which will be six stories, with a capacity of 163 beds. The project will mean an expenditure of about \$860,000. It is expected to have the building ready for occupancy about June, 1926.

Oklahoma

New Hospital for Chickasha.—Plans have been completed for the construction of a hospital for Chickasha which will be known as the general hospital. It will be a two-story building.

Woman's Hospital Changed to Cole General Hospital.—The name of the Woman's Hospital will be changed to the Cole General Hospital, and plans are being made to increase its capacity to fifty beds.

Oregon

Plan Protestant Hospital for Astoria.—The site has been purchased and funds are being raised for a Protestant Hospital for Astoria.

Portland to Have Surgical Amphitheater.—The Portland Surgical Hospital has completed a clinical amphitheater where Dr. Robert C. Coffey and associates will hold surgical clinics on Tuesdays, Thursdays and Saturdays. The clinics will be open to all visiting doctors who desire to attend.

Clinic Building for Bend.—A clinical building is under construction at Bend, which will be ready for use about January 1. The clinic is expected to furnish Bend with the facilities for medical and surgical attention not available at present. It is owned by Drs. John Besson, J. F. Hosch, and J. D. Donavan.

Pennsylvania

Jefferson College Hospital Annex Opened.—The Jefferson Medical College and Hospital opened the Samuel Gustine Thompson Annex, October 30.

Lay Cornerstone of Maternity Hospital.—The cornerstone for the new maternity wing for the Woman's Homeopathic Hospital, Philadelphia, was laid November 5.

Plan New Building for Williamsport City Hospital.—The board of managers of the Williamsport City Hospital has accepted plans and awarded contracts for the erection of a \$500,000 hospital building.

Germantown Hospital Moves.—The Germantown Hospital, Germantown, is now being moved to another site on the hospital grounds to make way for the construction of a new \$1,250,000 hospital building.

Hospital Annex Opened.—A new \$275,000 building for women with tuberculosis was opened, November 7, at the Philadelphia General Hospital, Philadelphia. Each ward contains only from four to eight beds.

Choose Site for Shriners' Hospital.—The Shriners' Hospital for Crippled Children is to be erected on Roosevelt Boulevard near Pennypack Creek. Mayor Kendrick an-

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Be sure the box says

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Is used without machines, the procedure consisting of pouring the contents of the ampoule into a shallow dish. Its advantages over the machine method are particularly obvious in institutional use. Can be given at the patient's bedside without the necessity of transporting a machine, or can be used for treating entire wards.

Price \$4.00 per dozen

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WHOLESALE HOSPITAL SUPPLIES
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nounced that the total cost of the institution will be about \$1,000,000, the structure costing \$750,000. The hospital will have 100 beds for the use of destitute crippled children of all races and creeds.

Dr. Doane to Plan New Philadelphia General Hospital.—Dr. Joseph C. Doane, superintendent, Philadelphia General Hospital, Philadelphia, has been relieved from his regular duties by Health Director, Krusen, in order that he may take charge of the planning of the new \$4,000,000 city hospital. It is planned to have the institution accommodate 2,000 patients. For the present, Dr. John B. Stauffer will act in Dr. Doane's place as superintendent of the Philadelphia General Hospital.

South Carolina

Dr. Williams to Superintend Spartanburg Hospital.—Dr. L. L. Williams, Asheville, has taken up his duties as the new superintendent to the General Hospital, Spartanburg, to succeed Mr. W. M. Moore. Dr. Williams recently retired from government service with which he was connected for many years.

South Dakota

Bethany Hospital Association Takes Over Moe Hospital.—The Bethany Hospital Association, Sioux Falls, has decided to take over the Moe Hospital which will continue to function with the same personnel. The Bethany Hospital board is also considering the taking over of the Sioux Falls Hospital which will also continue to operate as formerly. The association plans to merge the two hospitals in one main building. Committees have been formed to start final negotiations with both the Sioux Falls and Moe Hospitals. Dr. A. O. Fonkalsrud, formerly of Minot, is director of the activities.

Tennessee

Resigns Superintendency of Knoxville General Hospital.—Mr. Sam H. McCrary has resigned as superintendent of the Knoxville General Hospital, Knoxville.

Texas

San Antonio Hospital to be Remodeled.—The Eye, Ear, Nose and Throat Hospital, San Antonio, is to be remodeled and enlarged by an addition to contain twenty rooms.

Work to Begin on Masonic Nurses' Home.—The contract for the new \$40,000 Masonic nurses' home has been let and it is expected to begin work about December 1, according to the announcement of H. T. Ponsford.

Nurses' Home for McKinney Hospital.—A new \$75,000 nurses' home has been erected at McKinney City Hospital. The nurses' home is the gift of Mr. Fletcher B. Pope as a memorial to his wife and parents. The home is a two-story building which will accommodate twenty-five nurses.

Head of Baylor Hospital Resigns.—Mr. J. B. Franklin, superintendent, Baylor Hospital, Dallas, since 1911, has tendered his resignation to become effective December 31. Mr. Franklin has as yet made no announcement concerning his future plans. The board of trustees of the hospital have not yet acted upon his resignation.

Vermont

Bishop Degoesbriand Hospital Building Opens.—The Bishop Degoesbriand Hospital building, Burlington, was recently opened.

Washington

Purchase Burlington General Hospital.—The Burlington General Hospital, Burlington, has been purchased by Mrs. S. C. Scott, of that city.

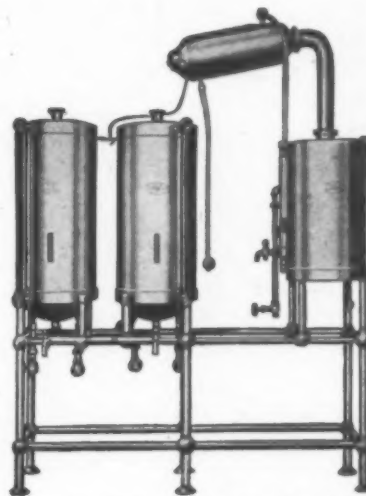


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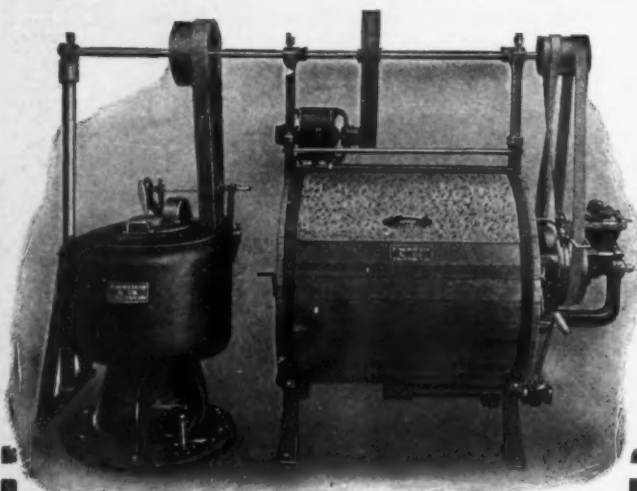
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Chicago

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Western State Hospital to be Remodeled.—The Western State Hospital for the Insane, Steilacoom, which was partially destroyed by fire at a loss of about \$20,000, will be remodeled soon.

Opposition to Walla Walla Hospital.—The proposed new hospital, Walla Walla, has met with opposition and will probably be erected elsewhere to a site more advantageous to the protestants.

Shelton Hospital Transferred.—The Shelton Hospital, which has been conducted by a hospital association during the past three years, has been leased to Drs. Gage, of Shelton, and Lamson, of Seattle.

Kelso Hospital Leased.—The Kelso Hospital, Kelso, which has been conducted as a private institution by physicians of that city, has been leased to Mrs. Newcomb who will conduct it as a general hospital open to the profession. It has a capacity of thirty patients.

Addition to Hospital Planned.—Firland Sanatorium, Seattle, for the care of tuberculous patients, is to be enlarged by two additional buildings for adults and children, according to the announcement of Dr. McLaughlin, city health commissioner. The institution has a present capacity of 160 patients.

Contract Let for Addition to Veterans' Hospital.—Contract has been let for the construction of the new administration building at the U. S. Veterans' Bureau Hospital, Walla Walla, at a cost of approximately \$32,000. By the erection of the new structure twenty-five beds will be added to the hospital.

Wing for Hospital.—Announcement has been made by the board of trustees of St. Luke's Hospital, Bellingham, of the plan to start construction of a north wing for the hospital at a cost of \$65,000. The plans include arrangements for x-ray equipment, two operating rooms, and a large number of private rooms.

West Virginia

Plan Seven-Story Addition.—Announcement has been made of the plans of the Kessler-Hatfield Hospital, Huntington, for the erection of a seven-story addition, for general hospital purposes.

St. Mary's Hospital Opens.—Formal opening of St. Mary's Hospital, Huntington, took place November 2. The hospital which has a total of seventy-five beds is under the supervision of the Pallatine Sisters under the Catholic diocese of Wheeling.

Pureair Sanatorium to Enlarge.—The Pureair Sanatorium, Bayfield, is planning a new addition.

Wisconsin

Dodgeville Lutheran Hospital Changes Name.—The board of trustees of the Dodgeville Lutheran Hospital, Dodgeville, announces that the name of the hospital has been changed to the Bethesda Hospital of Dodgeville, and that representation on the board will be open to all Protestant denominations.

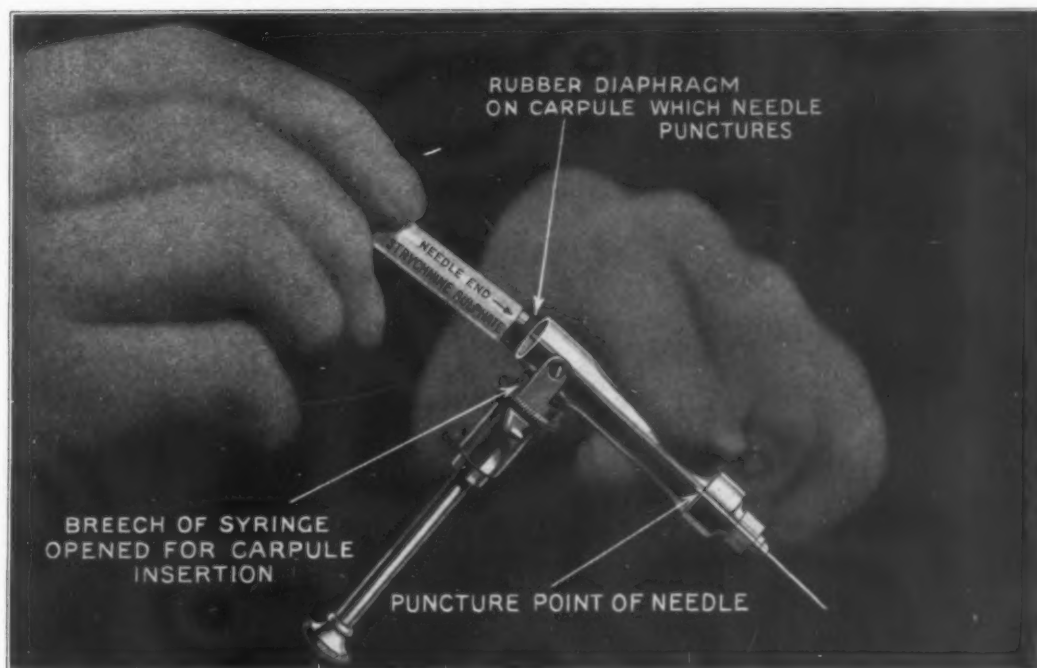
Addition to South View Hospital.—The council of Milwaukee has authorized an addition to the South View Hospital which will cost \$140,000.

Wyoming

Hopewell Hospital to Have Addition.—The Hopewell Hospital, Thermopolis, is planning a new addition to cost \$200,000.



Cool



"CARPULE" Service for the Hospital

The Cook "CARPULE" System of Hypodermics is particularly suited for emergency work in the hospital because it provides, at an instant's notice, a sterile, active, accurate solution in the "CARPULE"—a glass cartridge-ampule, which is loaded into the Syringe as a cartridge is loaded into a gun.

In the "CARPULE" there is no possible break in the sterility from the time the solution is filled under vacuum in the laboratory until the moment of injection.

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Hospitals in which the Cook "CARPULE" System is introduced are finding that in addition to its accuracy and dependability it is a great economy, both of material and time, an invaluable Instrument of Precision, particularly adapted for such use as hypodermic injections in the obstetrical ward.

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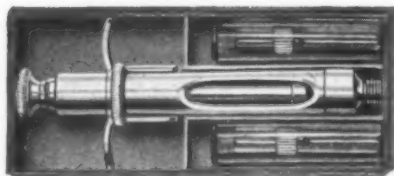
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Cook One cc. Syringe, with two steel needles in sterile vials	\$2.75
One box of ten 1 cc. "CARPULES" Ergot 2 gm....	1.70
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One box of ten 1 cc. "CARPULES" Corpus Lutea Extract	1.90
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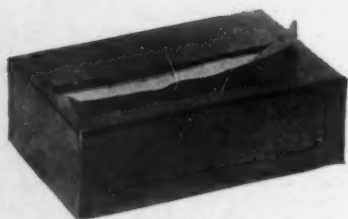
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**Trade News and
Publications**

Scientific Washing Numbers 9 and 10.—Water, a study of its use in the washroom is the subject of bulletin No. 9, part 2, of the series of scientific washing published by the Cowles Detergent Company, Lockport, N. Y. The Laundryowner and the Chemist, is the subject of number 10, which has just been released.

The Browne Window.—Richey, Browne & Donald, Inc., New York, N. Y., have issued a bulletin illustrating the Browne solid rolled steel window, a fireproof, weatherproof and dustproof window.

Reco Mixer and Kitchen Machine.—A bulletin describing the Reco mixer and kitchen machine has recently been issued by the Reynolds Electric Company, Chicago, Ill. These machines are especially designed for hotel, bakeries and institutional use.

The Stethophone, a Multiple Electrical Stethoscope.—A twelve-page booklet describing and illustrating the new stethophone or multiple electrical stethoscope, has been received from the Western Electric Company, New York, N. Y.

Amherst Incinerators.—The Buffalo Cooperative Stove Company, Buffalo, N. Y., has issued a twenty-three page booklet describing its Amherst odorless incinerators.

Science and Practice of Integral Waterproofing.—The fourth edition of The Science and Practice of Integral Waterproofing, a thirty-three page booklet published by the Truscon Laboratories, Detroit, Mich., has been received.

Higgin Sliding Screens.—The Higgin Manufacturing Company, Newport, Ky., has issued a thirteen-page booklet describing its metal screens and doors, illustrating the different types for the home, hospital and other institutions.

Ideal Food Conveyors.—A circular describing the Ideal Food Conveyors for hospitals has been issued by the Toledo Cooker Company, Toledo, Ohio. The circular is a reprint of the advertisement appearing in the September 1924 issue of THE MODERN HOSPITAL.

Curran's Tab-in-Dex.—A four-page broadside describing the tab-in-dex system for clinical record forms has been received from the Con. P. Curran Printing Company, St. Louis, Mo. The front cover is an endorsement of the use of the system by the Santa Rosa Infirmary, San Antonio, Texas. The third page contains a list of the hospitals using the system. Attention is also drawn to the fact that the holders and racks for the charts are the products of F. O. Schoedinger, Columbus, Ohio. A sample clinical record form also accompanies the broadside.

Duriron in the Hospital.—The Duriron Company, Dayton, Ohio, sends a copy of the eight-page pamphlet, "Duriron in the Hospital," describing the use of that product in various hospitals of the country.

It is a Far Step Ahead.—A folder describing the use of the Deknatel necklace for identifying babies has been received from the J. A. Deknatel & Son, Inc., Brooklyn, N. Y.

The Principles of Catgut Sterilization

In considering the physico-chemical problems involved in the sterilization of catgut, it is necessary at all times to bear in mind the peculiar nature of catgut.

We all know that it is made from the submucous connective tissue of the sheep's intestine; that it is a collagen; that it cannot successfully be sterilized by the common methods of boiling or steaming; that its tensile strength is frequently impaired by hardening or corrosive antiseptic agents.

The earliest method of catgut disinfection was, no doubt, the carbolic oil immersion of Lord Lister.

Oil of juniper was also among the earliest agents employed.



Von Bergmann

a new chemical substance, an "albuminate of mercury" was thus formed on the surface of the strand, more or less insol-



Lister

Von Bergmann recommended the use of corrosive sublimate in alcohol. It is well known that albuminous or protein substances are administered as antidotes in cases of bichloride poisoning. With catgut,

uble, and prevented penetration of the antiseptic agent.

Claudius of Copenhagen brought out iodine catgut, employing an aqueous solution.

There followed numerous modifications of this; the strength of the iodine was varied from 1/16th of 1% to as much as 10%; changes were made in the length of immersion, also in the menstruum, such as alcohol, ether, chloroform, etc.

Schimmelbusch, for example, modified Von Bergmann's process by storing the bichlorided catgut in a mixture of iodoform, alcohol and ether.

The principal objections that have been raised to iodine catgut have been: (1) doubt concerning its complete penetration; (2) deleterious effect upon the tensile strength; (3) irritant action upon the patient's tissues.

So much, briefly, for the principal chemical methods. As in most other problems in sterilization, the best thought was early turned in the direction of heat.

Hofmeister attempted to boil catgut in water for a few minutes, first hardening the strand in formaldehyd. In practice, however, this was not successful, as the catgut was either over-hardened by the formaldehyd or gelatinized



Hofmeister

by the hot water, for both actions were irregular and not measurable.



Rice

At Bellevue Hospital, New York, Dr. Charles Rice boiled catgut in chloroform (140°F) for one hour, then in alcohol (170°F) for one hour, after which he stored the

catgut in biniodide of mercury in chloroform.

Dr. George Ryerson Fowler, of Brooklyn, sought to increase Rice's temperature by heating catgut in alcohol under pressure.

Boeckman, of St. Paul, obtained as much as 284°F for three hours, in a hot air oven.

History will probably credit Dr. Bernard Krönig, of Germany, as being first to place catgut sterilization on a safe, practical basis. In the early 90's, being dissatisfied with the temperature obtained



Krönig

with xylol (284°F) Krönig recognized the value of cumol (cumene), raising his catgut for the first time to well over the thermal death point of the tetanus spore, 302°F for one hour.

Of the many

processes that have been evolved, none has stood the test of time, none has given the consistently satisfactory results to as great a degree as the cumol process.

In the first place, it offers a boiling point sufficiently high to permit catgut to be heated beyond the temperature required to destroy resistant spores.

Secondly, it contains no water to gelatinize catgut.

Thirdly, cumol has been found to be least stiffening and deteriorating in its action upon catgut.

With these important points in its favor, it is not difficult to understand the favorable reputation that has been attributed to "cumol catgut" in general.

However, a name only, or a method only, or a label only, are not the ultimate tests of any process, for here as in other fields, all kinds of errors, both of omission and commission may easily creep in to mar the value of the end result. Such errors may be the result of carelessness, of a too flexible surgical conscience, but more often they spring from a faulty or superficial understanding of the fundamental principles involved.

These fundamental principles may be briefly enumerated as follows:

1. The raw catgut chosen must be so made as to be able physically to withstand the rigors of properly conducted cumol sterilization.

2. The raw catgut must be absolutely dried — dehydrated — in order to insure successful cumolizing. Raw catgut contains upward of 10% of water or moisture, and unless this is completely eliminated, the catgut will gelatinize during cumolization.

3. It must be clearly recognized that while cumol is a liquid, it is a dry liquid, that is, free from water or moisture. It follows that the heat obtained with it as an agent, is necessarily dry or moistureless heat. It is therefore essential that dry heat thermal death points of spores be employed as the basis, not wet thermal death points, which of course are considerably lower.

4. Therefore, the text-book, dry heat thermal death point of the tetanus spore should ever be kept in mind. This is alleged to be 302°F for one hour. However, this should be regarded not as an infallible rule, but only as a "point of departure," so to speak.

5. Due allowance must be made for extreme differences in resistance between different strains of the same organism. There are "hothouse" and "garden" varieties of flowers, animals, children,—and spores; and the margin of safety, for safety's sake, must be extremely generous, certainly never less than 100%.

6. Attention must be directed toward those spores which are even more resistant to destruction than the tetanus and anthrax spores, but which are generally assumed to be non-pathogenic. Bacteriology is moving swiftly, and there is reason to believe that the non-pathogenic

organisms of to-day may prove to be the dreaded organisms of to-morrow.

Moreover, the so-called "benign" or harmless organisms, under certain conditions, may work together to give rise to a pathologic condition.

Therefore, true sterility should mean something more than "pyogenic sterility," or even "pathogenic sterility." It stops at nothing short of "complete sterility"—growthlessness.

7. While scrupulously maintaining all of the above principles, care must be taken not to destroy or injure the integrity of the catgut, for though sterile, it will be useless.

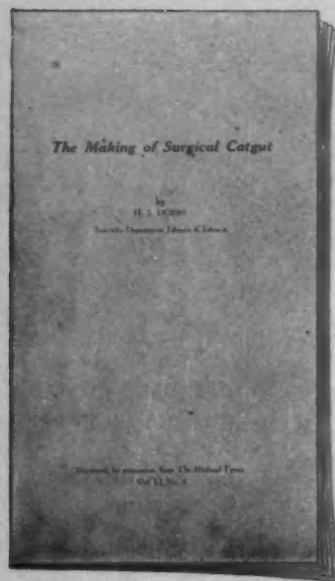
8. The fluid in which the catgut is preserved should be non-irritating to the tissues, or it may give rise to wound irritation with more or less devitalization of the tissues.

Although among the first in America to take up the use of cumol, our experience with it, dating back over thirty years, it is a matter of pride with us that we nevertheless retain the humble attitude of the sincere student.

We therefore earnestly solicit correspondence from and discussion with those further interested in this all-important subject, so intimately related to surgical results.

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For Lecturing



Our new booklet, "The Making of Surgical Catgut," is a small but complete reference book of dependable facts of interest to those who lecture, as well as those who attend lectures, relating to a subject of profound importance to surgical results.

There has been so much misinformation and unreliable references to this important matter, that we thought the effort would be of general interest to the profession.

How many of these booklets do you wish for distribution?

 Our Handbook of Ligatures Also Sent Free for the Asking.

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NEW BRUNSWICK, N.J., U.S.A.

"Is My Catgut Sterile?"

"I sometimes wonder if my catgut is sterile," remarked the Inquiring Surgeon to the Catgut Bacteriologist.

C. B. "It is—if it can consistently stand up against the ultimate test—anaerobic as well as aerobic cultures."

I. S. "Why anaerobic?"

C. B. "Because an examination of catgut without that is incomplete. We could not conscientiously say that catgut is sterile unless we knew it to be free from anaerobes. We are far more apt to have them in catgut, you know, than in the other objects you sterilize."

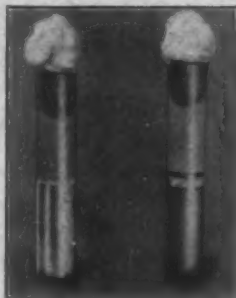


Fig. 1. Fig. 2.

Fig. 1. This catgut has been cultured in the usual aerobic manner, without growth.

Fig. 2. The same catgut has been cultured anaerobically, yielding abundant growth. The uppermost liquid is a layer of paraffin oil, the purpose of which is to exclude air from the culture.

I. S. "I suppose that is due to the nature of catgut, being an intestinal tissue in contact with all kinds of soil organisms the sheep takes in while grazing."

C. B. "Yes, we have many organisms in catgut that your hospital laboratory man seldom sees. For example, anthrax, tetanus, mesentericus, gas bacillus; then there is another very highly resistant spore-former we know among ourselves as the 'catgut bacillus.'"

I. S. "I never heard of that one."

C. B. "No, you wouldn't be likely to unless you did a great deal of catgut research. We catgut bacteriologists have quite a number of special problems that are infrequently encountered in what you might call every day laboratory life. Take, for example, the matter of accidental contamination. It is a problem that means much more to us than to your hospital bacteriologist, who generally looks only for a certain anticipated

organism, and if he finds a diphtheria bacillus in a throat swab, a gonococcus in a tampon, or a colon bacillus in a water specimen, the report is positive. If he doesn't find what he expects, the report is negative and that is all there is to it, so that ordinarily, air contamination is not considered an important factor."

I. S. "I think you're right. The presence of other organisms is usually of no significance."

C. B. "But when your bacteriologist is occasionally asked to culture catgut, he is asked not for his accustomed positive-or-negative report but for a growth-or-no-growth report! In other words, any growth even from accidental or air contamination, which ordinarily is of no consequence to him—now causes the report to go back 'not sterile.'"

I. S. "Do you really think air contamination is a serious factor?"

C. B. "Almost twenty years ago, Harrington, at the Boston City Hospital, exposed Petri dishes to the air of the operating room, and found as many as 131 organisms—mostly pus-formers—per square inch, per hour."

I. S. "How successful have you been in eliminating this element?"

C. B. "Well, here is a photograph of a culture of the air of our 'dust-proof room,' and here is another one taken without our anti-dust precautions."

I. S. "That's interesting. It shows that your method is quite practical."

C. B. "Here, too, is a photograph of the dust



Fig. 3. The Inquiring Surgeon inspects the "Dust Proof Transfer Room."

and dirt we extract from the air before it enters our dust-proof room."

I. S. "All that would have been in the close vicinity to your culture tubes, ordinarily. Let me see your 'dust-proof room.'"

This is what the Surgeon saw:

The room is 4' x 7' x 9', with smooth finished waterproof walls, ceiling and floor, all corners being round to avoid crevices. Part of one wall



Fig. 4.

Fig. 5.

Fig. 4. Four-inch plate of agar culture medium, used as a control test of the air in the dust proof room. This plate was exposed to the atmosphere of the room while air was supplied through the filter. There are no colonies on it.

Fig. 5. This plate was exposed in similar manner, but the air was supplied to the dust proof room without being passed through the filter. There are 34 colonies on it.

is made of plate glass, allowing daylight to enter. The work bench is built in without cracks, corners or crevices.

The Surgeon noted also that an open Petri plate was exposed on the table near the field of operation. He asked the purpose of this.

C. B. "That is a check on the dust conditions existing during the operation."

There are gas and electric connections, also a sprinkler system permitting complete spraying of the entire room, ceiling, walls, work bench and floor. This latter slopes toward a drain which carries off the sprinkled water.

The air that is pumped into this room first passes through a specially constructed filter so that dust-borne bacteria do not enter the room. The old air is carried out of the room through another pipe located diagonally opposite the intake pipe.

The Surgeon was very much interested in all these points and noted with keen appreciation the existence of an anteroom as a further safeguard of the "inner sanctuary," as he called it. He thought of an operating room that might be so equipped.

"Let me see your technique," said the Surgeon.

For answer, the Catgut Bacteriologist and his

Assistant, now ready for their serious work, entered and locked the special room, leaving the Surgeon to observe their technique through the large plate glass window. This is what he saw:

First, the Assistant deeply "nicked" the glass ligature tube with a file. Then he rotated the tube at the nicked part, in the full flame of a Bunsen burner. He then broke it at that point, taking care to keep his fingers away from the flamed part. He then held up one of the halves of the tube so that the Bacteriologist easily withdrew the coiled strand, using flame-sterilized forceps.

In six seconds by the watch the entire strand had been transferred to the culture tube and its cotton stopper replaced in it. While the Assistant was performing his part in opening the ligature tube, the Catgut Bacteriologist was removing the cotton stopper from the culture tube and flame-sterilizing its mouth in another Bunsen burner.

Working as a trained team, without a false move, both men finished their respective tasks at the same moment.

The Surgeon noticed particularly that no one spoke during the procedure, also that the Catgut Bacteriologists painstakingly refrained from raising dust from their clothing and persons. They moved quietly and slowly, the whole aim being to make certain that no non-sterile object should touch the field of operation and that every precaution be taken against dust falling upon or into any of the equipment. He was interested to see the generous use made of the Bunsen burner flame as a sterilizing agent.

I. S. "Why are you so extravagant in your use of catgut for testing? Why don't you cut off small pieces?"

C. B. "Because we're afraid of contamination. Cutting the strand means a scissors, a handling,

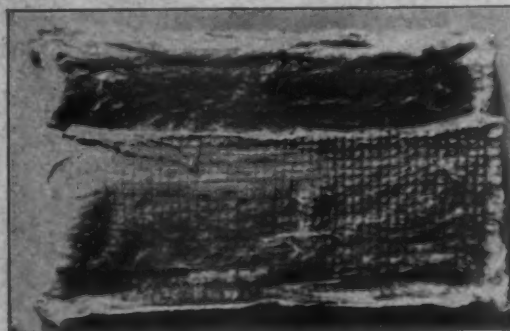


Fig. 6. The upper surface of a layer of absorbent cotton after one hundred hours' use in the air filter. The black specks are flies. This dirt and dust, with millions of bacteria, would have been factors working against successful results, were we not using anti-dust measures.

and a loss of time, all of which invite contamination."

I. S. "I notice that you use unusually large test tubes for your culture medium. Why is that?"

C. B. "First of all, the mouth of the usual half-inch test tube is so small that it often retards the introduction of a coil of catgut quickly thrust into it. This is not true of these large tubes. Remember, we're after speed and dexterity in transferring, because we are fighting accidental and air contamination."

I. S. "These big tubes hold much more than the usual quantity of broth, do they not?"

C. B. "Yes, about 75cc. instead of the usual 10cc. Years ago we discarded the customary small quantity because our control tests would often show failure to grow even when the culture was purposely contaminated."

I. S. "Why should that be?"

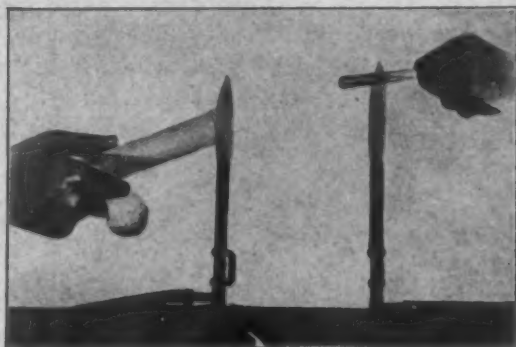


Fig. 7. The catgut tube at the right is being flame sterilized, and by the time the Assistant Bacteriologist has broken it, the Catgut Bacteriologist will have flamed the culture tube at the left.

C. B. "Because a little of the catgut preserving fluid is carried over into the culture tube, and may act as an antiseptic. But sufficiently diluted, this inhibitive action is overcome."

I. S. "Suppose you are testing an antiseptic suture such as iodine catgut, do you follow the same procedure?"

C. B. "No, because now you are dealing with an antiseptic catgut. This is how we handle that situation. After the usual week in the incubator, the culture flasks are removed and examined, and if they do not show growths they are contaminated with a 'loop' of some fresh culture, staphylococcus aureus being the one we generally use. Then back they go into the incubator for a couple of days more and we observe whether they develop a growth. If they do, that proves that there is not

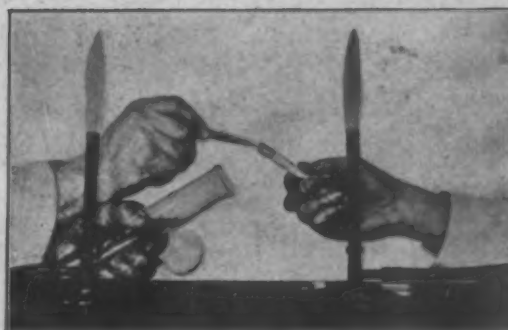


Fig. 8. The Catgut Bacteriologist has flamed the culture tube as well as the forceps, while the Assistant at the right broke the flamed tube without touching the flamed portion. The catgut strand is then placed in the culture medium and the cotton plug replaced within six seconds from the start of the operation.

sufficient chemical in them to be inhibitive. In culturing antiseptic catgut, we use not 10cc. of broth, not 75cc., but 400cc.—in an Erlenmeyer flask of 600cc. capacity."

I. S. "In other words you dilute the antiseptic by means of an excessive quantity of culture broth. I never heard of that before."

C. B. "We, too, used to attempt to chemically neutralize or de-antisepticize the strand, but more recent experience warrants disapproval of all such procedures. They mean increased exposure to conditions of doubtful sterility. Such manipulations cannot be done over and over again without introducing some bacteria. How much simpler it is to get the result by dilution to a point where the chemical germicide is inactive and then prove it later by purposely putting some bacteria into the culture tubes to see if the broth will grow them!"

I. S. "I think I heard you say that the broth you use was alkaline. Why do you make a point of that? Broth of acid reaction is often used for culture medium."

C. B. "I am glad you brought up the question, for it is important. We have found that catgut 'sterilized' by certain methods will give growthless results in acid broth but will show frequent growth in alkaline broth. For instance, raw catgut soaked for a week in chloroform saturated with mercuric iodide will almost uniformly give 'sterile' results in broth that is slightly acid but will, in about half of any set of a dozen tests like ours, show growths in alkaline broth. So you see why this matter of alkaline culture medium is a vital one."

I. S. "I noticed that you took your ten test tubes from two different racks. Was there any difference?"

C. B. "Yes, five are for the aerobic tests and



Fig. 9. Rotary blower and air filtering box. The box contains two screen covered frames about 18 inches x 36 inches, placed in the center. Between the frames is a layer of absorbent cotton 3 inches thick. The air from the blower enters above the cotton and the outlet is below.

five for the anaerobic tests. The latter tubes have a layer of sterilized liquid paraffin on top of the broth to exclude all air, the air having been previously driven off by boiling."

I. S. "So you really believe the anaerobic test is a good thing?"

C. B. "We have seen enough of it to make us realize that catgut, no matter how sterilized, is not safe unless it routinely passes both tests—anaerobic and aerobic. Remember, tetanus is a prominent example of anaerobes, and if tetanus were the only anaerobe existent in catgut—which is not the case—we would feel thoroughly justified in going as far as we do. Why, look at these test tubes. The same catgut that passed an aerobic test gave an abundant growth when tested anaerobically."

I. S. "Do you incubate your anaerobic tests the same length of time as your aerobic?"

C. B. "Yes, Each lot of ten culture tubes rep-

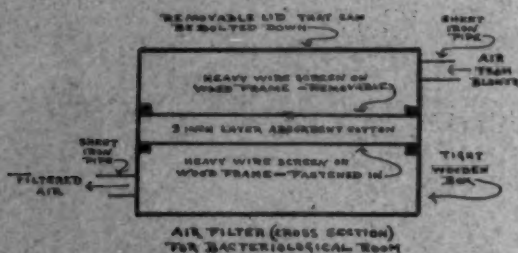


Fig. 10.

representing a batch of manufactured goods, is kept a week in the incubator, and if all are clear and growthless at the end of a week, the batch is passed and allowed to go to our stock-rooms. I would also call to your attention that all of our culture tubes of broth are kept one week in the incubator before they are used. This of course is done to be certain that the broth itself is sterile."

I. S. "You are working under ideal conditions here, but you surely don't expect all bacteriologists to be provided with this equipment. What can they do?"

C. B. "Certainly, good bacteriological sterility work can be done under more simple conditions.



Fig. 11. The large size culture tube we use gives more successful results than the small tube generally employed.

Any isolated quiet room can be used. Damp cloths can be spread on the work table and on the floor, and the rest of the operation carried out as we do it. We are specialists, we do a lot of this work and we want our conditions to be as near 100 per cent perfect as possible. And then you must realize this filtered air is so necessary for us because we are doing a great many of these tests in a small closed room with Bunsen burners going, and a quantity of chloroform and other fluids are being spilled around when we open the ligature tubes. Such a small room would be uninhabitable unless fresh filtered air were available."

I. S. "Well, you are doing a fine work in this field, and deserve credit for focusing attention on an important and neglected subject. I never realized that Catgut Bacteriology has so many special phases. With the great importance catgut has assumed, I would like to see the day when our colleges will lay more stress on these overlooked points of technique, in the training of our young bacteriologists."

Additional Catgut Literature Upon Request

Johnson & Johnson
NEW BRUNSWICK, N. J., U.S.A.

The Story of Catgut

How It Is Made

In the minds of many people, catgut is catgut. Who makes it, how it is made, how it is sterilized,—all these are accepted at the face value of the little label inside the tube.

Too often catgut does not receive the degree of careful study that its important relation to surgical results would seem to warrant.

It is therefore hoped that the story of the manufacture of catgut will prove interesting not only to those in the profession who wish to have information for information's sake, but also to those whose experience has developed a searchingly inquisitive turn of mind concerning all details which affect their success to the degree that catgut does.

The catgut industry of the distant past was concerned principally with the preparation of strings for musical instruments, for in those days there was no such thing as surgical catgut.

A considerable quantity of commercial catgut is made in certain European coun-

tries, under conditions which from the surgeon's viewpoint are undesirable to say the least.

So large is the present day demand that it is difficult to visualize how this is adequately met, but the fact remains that there are single catgut makers who are able to handle the intestines of nearly two million sheep per annum (or six and one-half thousand per working day) in the production of surgical catgut.

For years it had been the fondest hope of the alert and conscientious surgical catgut manufacturer to be able to control every phase of the operations from the time the intestines were taken from the sheep, until the sterilized strands finally reached the surgeon's hands, and although for a considerable period, control to a limited extent, had been exercised, it has remained for the present to establish a laboratory, in proximity to the source of supply, wherein might be adequately discharged the manufacturer's obligation to secure the attainment of an ideal.

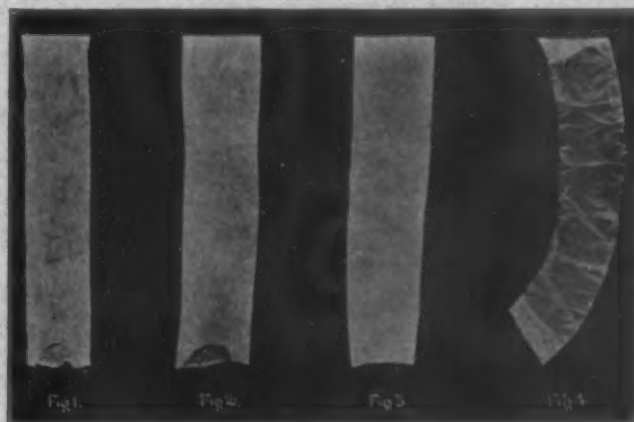


Fig. 1. Intestines as taken from the sheep, containing feces and fat nodules. Fig. 2. Whole gut after first stripping, which is the initial stage in removing foreign matter. Fig. 3. Whole gut after further stripping—here the gut is nearing the stage or "condition" for manipulating. Fig. 4. "Conditioned" gut—the tissue has now lost its original light pink color and is ready for splitting.

The intestines of the sheep are from sixty to seventy feet long and in structure much the same as that of the human being, but for surgical purposes and in order to obtain the very finest product, only about one-third of the total length can be utilized—this portion is about twenty-four feet long and is known as the "narrow end" since it commences at the stomach—the portion that gradually widens out and eventually joins the large intestine, is disposed of in other quarters and usually is converted into sausage casings.

Appreciating the fact that putrefaction very quickly commences, unless the intestines are handled almost immediately, it has been found advisable to erect these laboratories close to the abbatoir in order that the many processes through which the gut must pass, can be commenced within a very short time after removal of the intestine from the animal.

The intestines when received, contain much fecal mass and fat nodules (Fig. 1) which, to avoid decomposition, must be promptly removed; therefore, the initial stage in the manufacture of catgut is known throughout the trade as "stripping." This, like so many of the twenty-four subsequent operations previous to sterilization, is performed by hand.

"Stripping" in the main, consists of drawing the intestines through the closed hand, which by exercising a peristaltic-like pressure, removes the gross dirt (Fig. 2) and in this state they are trans-

ferred to containers of cold water for further treatment.

They then have to undergo "conditioning," to effect which the stripping process is similarly repeated for several days—each daily manipulation and transference to tubs of clean cold water helping to still further remove the dirt and fecal residue. (Fig. 3) until the gut finally loses its original light pink color and reaches the proper state or "condition."

A very watchful eye has to be kept over the gut while passing through these stages, as decomposition is very likely to manifest itself; thus a Sunday or a holiday does not go by without the customary inspection and handling.

The conditioned guts (Fig. 4) are now transferred to basins containing an alkaline solution and placed in front of the splitter's table, from which they are removed by hand, pulled over a curved tapering peg and drawn against a vertical razor-edge knife which serves to split the gut into two parts. The natural twist of the intestine (Fig. 6) automatically adjusts itself to the curved tapering peg with a result that one-half of the intestine is pulled to the right of the razor edge, and the other to the left. Thus will be accumulated on one side of the operator a pile of "rough-side" half-guts (Fig. 10) termed rough, on account of their being the mesenteric surface and on the other, a pile of "smooth-side" half-guts (Fig. 11).



Fig. 3. Showing the thread or membrane which is adherent to the "smooth-side" of the intestine—this thread must be removed by hand before the tissue can be used for the purpose of making catgut. Fig. 6. The intestine reduced to its submucous layer—this also illustrates the natural curve of the intestine—the "smooth side" follows the outer curve and is therefore a trifle longer than the "rough (or mesenteric) side" which follows the shorter curve. Fig. 7. The sub-mucous structure after having undergone a bleaching process. Fig. 8. Whole gut having undergone all the processes, including a treatment to impart suppleness.

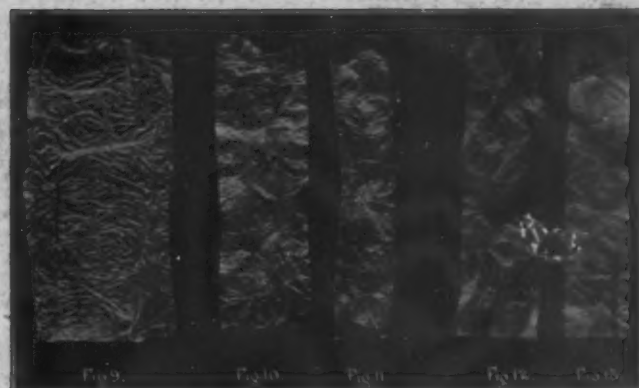


Fig. 9. The gut as described in Fig. 7 has here been split open. Fig. 10. Illustrating the "rough-side" of the split intestine before undergoing the final process. Fig. 11. The "smooth-side" of the split intestine before undergoing the final process. Fig. 12. The finished "rough-side" strip after all processes including the suppleness treatment—ready for spinning. Fig. 13. The finished "smooth-side" strip after all processes including the suppleness treatment—ready for spinning.

The smooth-sides which are a trifle longer, due to the fact that they are that half of the gut which follows the outside (or longer) curve, have a narrow thread of tissue (or membrane) adhering to the entire length, (Fig. 5). These must positively be removed, for the reason that if allowed to remain, owing to their only slightly adherent qualities they would be likely to become loose and materially interfere with the more delicate operations to follow.

Threading (the removal of the threads) is a difficult undertaking and requires considerable manual dexterity which can be acquired only through years of constant practice.

A few inches of the smooth-side half-gut is thrown over an upright board and scraped with a dull edged instrument until the thread is loosened; thereafter the loose thread is pulled back over the top of the board and drawn by hand.

The sheep's intestines, like others of the animal kingdom, consist of four distinct coats, the inside, or mucous layer with its numerous villi, or spongy masses of glandular and epithelial cells and the outside or serous coat, while between them will be found the muscularis and submucous connective tissue.

Besides the fact that the mucous coat can serve no useful purpose, there would be a great tendency to decomposition if it were allowed to remain; therefore with this fact in mind it becomes necessary to eliminate this part of the in-

testinal structure, while other objections such as the brittleness of the serous coat, gradually reduce the available material to the submucous connective tissue, and it is this, and this alone, from which the best surgical catgut is manufactured.

The loosening of the various intestinal coats by alkaline solutions is a necessary procedure for accomplishing their separation from one another.

The removal of the useless tissue is a delicate operation, requires most accurately adjusted machinery and above all else the exercise of most skilful workmanship; the various processes are therefore in the following sequence:

(1) **Cleaning:**—The half-guts are drawn between a revolving drum and a rapidly turning paddle wheel in the presence of a constant stream of tepid water, serving to wash away the spongy mass of mucous tissue as it is brushed off.

(2) **Scratching:**—A scraping process which is conducted by hand—here the mucous-free strips are hung over a blunt hook and the hand is drawn with a downward motion so that the gut is allowed to pass between the thumb and a curved hook.

(3) **Sliming:**—This is a long process demanding considerable vigilance. The mucous-free and scratched strips are now placed in a machine that repeatedly draws them between a pair of blunt edged scrapers and a heavy weight that serves to press the tissue against the blunt edges.

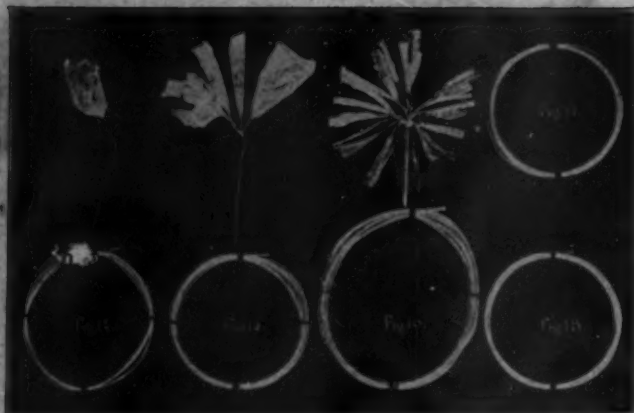


Fig. 14. One strip of "rough-side" tissue twisted into a strand of fine catgut. Fig. 15. Two "rough" and two "smooth" strips twisted to form a larger strand of catgut. Fig. 16. Showing the sixteen individual strips which compose a strand of catgut this size. Fig. 17. A coil of unpolished catgut. Fig. 18. A coil of polished catgut ready for sterilization.

This concluding a two-weeks' treatment, finally completes the removal of the serous and muscular layers, leaving the submucous connective tissue, which alone should be used for the manufacture of surgical catgut.

The next step is the cutting of the strips into proper lengths and looping the ends to facilitate spinning; however, before spinning they must first undergo a bleaching process (Fig. 7) while a further step in the preparation of catgut is a treatment serving to impart greater suppleness to the final product (Fig. 8).

While still in a moist state several of these finished strips are twisted or spun

together serving to form one solid strand (Figs. 14-15-16) after which they are attached to pegs and stretched between posts until dry.

After this, the dried, rough strand of catgut is removed to the polishing chamber where the process of polishing is conducted by hand and by experts, upon whose delicacy of touch largely depends the integrity of the finished strand. (Fig. 18.) Then after a simple washing they are gauged to correct sizes, and made into coils in preparation for the commencement of their second long journey, namely that of sterilization.

(NOTE: For convenience, the above specimens were photographed in a dried condition.)

The above represents how surgical catgut should be made.

Many years ago, being dissatisfied with the slaughter-house conditions that made no distinction between catgut destined for surgical use and that which went into tennis strings, musical strings and sausage casings, we set to work to make, as well as sterilize, our own catgut.

We had to start at the beginning to learn a new trade, but we did it and now, as a result of intensive study and application, we offer the profession a grade of catgut which from start to finish is truly "fit for surgery." This ideal is possible only by having the entire work in our own hands.

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